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ABSTRACT

Proceedings of a convention on dissemination held at the National Center for Research in Vocational Education in Columbus, Ohio are reviewed. The conference agenda includes brief summaries of small-group workshops and large-group sessions. Topics covered include acronyms and abbreviations in vocational education dissemination, microcomputers, workshops, the dissemination climate, dissemination, research and demonstration product utilization, technical assistance, library resources, vocational basic-skills peer teaching, state dissemination and utilization manual, a computerized information retrieval service, industry/education linkages, the National Diffusion Network, Louisiana's automated Vocational Education Data System, career education dissemination, entrepreneurship education, research and development impact, teleconferencing, the Resource and Referral Service, water quality education, and dissemination and utilization. Many of the summaries refer to handouts or additional information from particular workshops or sessions that are included in an appendix. Appendix A contains the text of the keynote address, "Program Improvement Coordination: Recommendations for Policy and Action." Appendix B contains selected presentation materials. Appendix C lists conference participants. (YLB)

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ED224998

A RECAP OF THE FIFTH NATIONWIDE VOCATIONAL EDUCATION DISSEMINATION CONFERENCE

November 17-19, 1982

Compiled by

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The National Center for Research in Vocational Education
The Ohio State University
1960 Kenny Road
Columbus, Ohio 43210

January 1983

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FOREWORD

A Recap of The Fifth Nationwide Vocational Education Dissemination Conference reviews the proceedings of that convening of vocational education disseminators, linkers, administrators, researchers, resource staffs, and other change agents at the National Center for Research in Vocational Education on November 17-19, 1982. The conference featured tools, techniques, information, and examples that can be used to promote good dissemination and utilization of R&D results. As a result of the excellent response to the call for presenters issued several months before the conference and the support and participation of numerous agencies and individuals, conferees were able to attend at least eleven workshops from among the forty or more choices offered. In all sixty-five individual small-group and large-group events were included during the two and one-half days of the conference.

As a record of conference activities and a guide to available resources, this recap is intended to serve conference participants as a useful office reference to prompt their continued dialogue and exchange of resources and information.

This year, as in previous years, the conference planning was advised and facilitated by the National Network for Curriculum Coordination in Vocational and Technical Education (NNCCVTE) and National Research Coordinating Unit Association (NRCUA). This recap was compiled by Norman M. Singer and Shelley Grieve, conference coordinators. Clarine Cotton and Ruth Nunley typed the manuscript, and Janet Ray served as word processor operator. Editorial assistance was provided by Mike Wonacott of the Field Services staff.

Robert E. Taylor
Executive Director
The National Center for Research
in Vocational Education

EXECUTIVE SUMMARY

This document reviews the Fifth Nationwide Vocational Education Dissemination Conference, which was held at the National Center for Research in Vocational Education in Columbus, Ohio, on November 17-19, 1982. Brief summaries of small-group workshops and large-group sessions are provided following the sequence of the conference agenda itself. Many of the summaries also refer the reader to handouts or additional information from that particular workshop or session and included in an appendix. Also included in this document is the text of the keynote address and a list of all conference participants with their mailing addresses and telephone numbers to facilitate continued dialogue and exchange of information and dissemination resources and ideas.

AGENDA

THE FIFTH NATIONWIDE VOCATIONAL EDUCATION DISSEMINATION CONFERENCE

TOOLS, TECHNIQUES & EXAMPLES FOR BETTER DISSEMINATION

17 WED

AM Chairperson: Norm Singer

8:15 AM COFFEE AND REGISTRATION

9:00 AM WELCOME AND STAFF INTRODUCTIONS

Norm Singer, Conference Coordinator
Senior R&D Specialist, Dissemination Leadership and Coordination
National Center

Opening comments

Robert E. Taylor
Executive Director
The National Center for Research in Vocational Education

9:15 AM KEYNOTE ADDRESS: "Program Improvement Coordination: Recommendations for Policy and Action"

Larry Selland
State Director
State Board for Vocational Education
State of Idaho

See text on pp. 23-38.

10:15 AM ORIENTATION TO PRODUCTS AND SERVICES FROM THE NATIONAL CENTER
Room 1A, 1960 Building

Cathy Ashmore
National Center

Time to BREAK AND BROWSE was included.

10:45 AM INTRODUCTION TO THE SESSIONS
Room 1A, 1960 Building

Shelley Grieve
Conference Coordinator
National Center

11:00 AM SESSION #1. Choose one workshop.

- THE ALPHABET SOUP OF DISSEMINATION, OR "ACRONYMS FOR CHOWDERHEADS" (repeated, session #4)
  Room 1A, 1960 Building

  Rebecca Douglass
  Randi Maxfield
  East Central Network/Illinois Vocational Curriculum Center

  New vocational education disseminators and linkers are often befuddled by the plethora of acronyms, abbreviations, and initials used as a kind of "shorthand" in the professional lingo. This workshop was designed to introduce such acronyms and abbreviations to conferees new to the world of voc ed dissemination. Starting with a bingo-type self assessment game and an M.E.A. (Most Egregious Acronym) contest, participants responded inquisitively to the challenge of mastering the meaning of the acronyms and abbreviations pertaining to voc ed curriculum development, databases, online services, and associations, as well as to vocational education at large. A resource booklet, The Alphabet Soup of Dissemination: Knowledgeable Networking, was prepared for the workshop and provided to participants. This booklet introduces and defines many aspects of dissemination lingo and charts terms according to several considerations. It also includes a very useful bibliography for becoming more familiar with voc ed dissemination.

- FROM CABINS TO CASTLES: A TEACHER CENTER/VOC ED EXPERIENTIAL PROGRAM (repeated, session #10)
  Room 1B, 1960 Building

  Ken Richards
  Mountain Area Teacher Education Center (North Carolina)

  At the Mountain Area Teacher Education Center, voc ed students and teachers have been involved in the restoration of historic sites (ranging from a pre-Civil War cabin to the local "castle," the Biltmore House) and in developing slide programs for school and community presentations, thus achieving ownership of the program and becoming more involved with the community.

  Mr. Richards outlined this experiential learning process, and participants recorded ways to adapt the method to suit their own projects. Participants, in turn, provided the presenter with specific ideas for improving his own program in the areas of community dissemination, teacher training, and student participation.

- INSTALLING MICROCOMPUTER CURRICULA: PROBLEMS AND TECHNIQUES (repeated, session #6)
  Room 1C, 1960 Building

  Gary Lloyd
  Utah State Office of Education

  Vocational education disseminators and linkers must frequently respond to inquiries related to microcomputers. The purpose of this workshop was to provide information about the state of the art in the area of microcomputers, particularly as it relates to business education, and to examine specific word processing curriculum materials that have been developed in Utah. Participants expressed interest in learning more about specific operating systems, vendors, and software purchases. The Utah Accounting Package (software) was also of great interest. The presenter offered the important caution that hardware should not be considered until the software needs of the program at large are carefully explored.

- THE NITTY GRITTY OF WORKSHOPS (repeated, session #7)
  Auditorium, 1900 Building

  Mark Newton
  Barbara Kline
  The National Academy, National Center

  To be successful, professional development activities must be designed to motivate people to attend, address particular needs through specific content, be provided by well-qualified instructors, and be easily implemented. At this session, participants explored how disseminators can meet these goals when conducting workshops and other inservice activities; reviewed the variables pertaining to instructor, learner, and setting that promote adult learning; generated over forty tips to aid in developing and conducting workshops; and found out how to get more from the activities that they attend.

- ASSESSING THE CLIMATE FOR DISSEMINATION AND COMMUNICATING WITH THE PUBLIC (repeated, session #3)
  Conference Room, 1900 Building

  James M. McGeever
  Appalachia Educational Laboratory (West Virginia)

  John Brunner
  Cincinnati Public Schools

  The presenters described one approach to surveying the community's needs for dissemination--the "dissemination climate." Identifying community attitudes toward, and knowledge of, the local education agency is a first step. A technique for accomplishing this via telephone survey was presented. Because so many community members formulate their attitudes toward the schools on the basis of what they see, hear, and read in the media, methods for working effectively and systematically with the media were stressed.

12:00 PM LUNCH AND "TABLE TALK"
Room 1A, 1960 Building

Very informal discussion took place over lunch on old and new interests. Tables were designated for "high tech," "job placement and guidance," "equity," and other options.

PM Chairperson: Judy Samuelson

1:00 PM SESSION #2. Choose one workshop.

- GIVING A ONE DAY STATE DRIVE-IN DISSEMINATION/RFP CONFERENCE (repeated, session #9)
  Room 1A, 1960 Building

  Joe Kelly
  New Jersey State Department of Education

  Priscilla Walsh
  Occupational and Consumer Resource Center (New Jersey)

  The New Jersey vocational education research and dissemination staff places emphasis on a solid relationship between proposed vocational education research and development work and the awareness on the part of proposers regarding the results of prior R&D funding in the state. To explain this emphasis in greatest detail, this workshop was designed to illuminate a short-term dissemination technique that can be adapted in other geographically small states that want to strengthen connections between the Request for Proposal (RFP) process and a mutually supportive dissemination and development system in vocational education. The workshop organizers used a variety of resources and documents in their presentation, including a guidebook on how to submit a proposal under P.L. 94-482 for program improvement, supportive services, and special categories. Considerable emphasis was given to their state-wide one day drive-in dissemination and the "RFP Release" conference, which is held once a year.

- UTILIZING R&D PRODUCTS IN STRATEGIC PLANNING AND HUMAN RESOURCE DEVELOPMENT (repeated, session #6)
  Room 1B, 1960 Building

  Warren Groff
  North Central Technical College (Ohio)

  Mankind is now entering a period of transformation from an industrial society to a computer-literate, high technology, information society. The impact of this transformation is being felt by every institution in society, particularly education. As a result, educational institutions must develop a strategic planning and management capability to cope with rapid technological change.

The purpose of this presentation was to demonstrate strategic planning using R&D products from the National Center, ERIC, and other producers of vocational/technical education resources. The presenter gave an overview of strategic planning and led participants through a strategic planning workbook. Assessing the external environment, conducting an institutional or system-wide audit, and strategic options were explained. Goal options, such as higher quality, new student clientele, and public service, were discussed in some detail and illustrated with examples relating to human resource development, computer literacy, the paperless office, and the automated factory.

- SELLING WHAT YOU KNOW SUCCESSFULLY: MARKETING HUMAN SERVICES (repeated, session #3)
  Room 1C, 1960 Building

  Michael Farr
  JIST Works, Inc. (Indiana)

  This session outlined how JIST Works has developed a successful dissemination project on a limited budget and expanded its target audience to a nationwide base. Techniques discussed included the importance of image in publications and other facets of development; locating your audience; how to supplement a small staff with experts in specific areas; and paying your own way through materials sales, training, and other activities.

- APPLYING RESEARCH FINDINGS TO LOCAL AND STATE PROBLEMS AND CONCERNS
  Auditorium, 1900 Building

  Bill Stevenson
  National Center

  This session illustrated the ways in which personal intervention--technical assistance--can increase the impact of research on program improvement and sought to delineate its role as a D&U activity. Essential elements of effective technical assistance were identified, along with methods for evaluating the effectiveness of this method of dissemination.

  Technical assistance was defined as consisting of problem identification, problem analysis, generation of alternative solutions, implementation of solution, and evaluation. To be successful, technical assistance should be continuous, on-site, provided by persons with expertise, a two-way exchange of benefits, responsive to recognized needs, and compatible with the situation in the particular state.

- THE LIBRARY AS AN INFORMATION CENTER
  Library, 1900 Building

  Naomi Jacobs
  National Center

  Special libraries and resource centers often prove to be a vital resource in state or regional dissemination activities. This workshop was geared for a discussion of the methods that special libraries can use to disseminate new information as quickly and efficiently as possible and to answer specific reference questions from clients. Three major areas of concern related to libraries as dissemination resources were discussed: acquisitions, organization, and traditional vs. innovative methods of dissemination. Included were discussions of specific acquisitions tools, alternative methods of classification, reference tools, and current awareness techniques for dissemination (including manual as well as computer-assisted procedures). The importance of the special library as a dissemination agency in comparison with other types of libraries was emphasized. The ERIC system as a sample special collection was discussed in terms of key factors noted above. Participants were given the opportunity to examine various library resources and to ask questions.

2:00 PM SESSION #3. Choose one workshop.

- ASSESSING THE CLIMATE FOR DISSEMINATION AND COMMUNICATING WITH THE PUBLIC (repeated from session #1)
  Room 1A, 1960 Building

  James McGeever
  John Brunner

- VOCATIONAL BASIC SKILLS PEER TEACHING (repeated, session #8)
  Room 1B, 1960 Building

  David Chandler
  Mississippi State University

  Carl McNair
  Humphreys Vocational Center (Mississippi)

  The Mississippi vocational education staff has developed a peer teaching method for teaching reading and math skills to disadvantaged high school vocational education students. This workshop considered the effectiveness of this approach by reviewing documented research measuring academic gains, motivation, social skills, behavior, and class attendance. A map of Mississippi was used to pinpoint geographic locations of the project in relation to state agencies, and curriculum guides and other teaching materials were analysed by workshop participants. A videocassette was reviewed to explore the actual day-to-day practices of the project, which utilizes as tutors students who are functioning on the same level as those being tutored. Participants agreed that this

approach would be most desirable if it were shown to be as effective as cross-level tutoring.

- DEVELOPING AND USING A STATE D&U MANUAL (repeated, session #8)
  Room 1C, 1960 Building

Carol Sanders
University of Illinois

The objectives of this presentation were to assist participants in becoming aware of what should be included in a state dissemination and utilization manual and to assist participants in understanding how the contents of the Dissemination Manual for Enhancing Program Improvement, developed in Illinois, can be adapted or adopted for individual states' use. Participants were afforded opportunities to become more familiar with the individualized planning process addressed thoroughly in the Illinois manual and to sketch out individual dissemination plans for the six different selected program improvement resources, selected nationwide and promoted by the National Center, that were used as examples in the workshop. Copies of the Manual were provided to participants on a complimentary basis.

- OPERATING A STATEWIDE COMPUTERIZED INFORMATION RETRIEVAL SERVICE (CONTINUED in a related workshop, session #12.)
  Auditorium, 1900 Building

Gloria Kielbaso
John MacKenzie
Michigan Vocational Education Resource Center

Fred Manley
North Carolina Department of Community Colleges

Document retrieval systems operating in Michigan and North Carolina were described in this session. The Michigan Vocational Education Information System provides immediate access to the latest information and resources. Participants received an explanation of the system and its user guide. The Computerized Information Retrieval Service operated by the North Carolina Department of Community Colleges consists of four distinct services: retrieval of copies of past computerized search reports ordered by staff and faculty of the community college system, retrieval of information sources by computer on topics not already searched, computer retrieval of information on ongoing and recently completed R&D projects in vocational education, and retrieval of documents from the ERIC microfiche collection. Mr. Manley stressed that this information retrieval service model is easily transportable to other states and greatly promotes improvement of dissemination of voc ed information and resources. Both the Michigan and North Carolina systems were demonstrated during a follow-up workshop held during session #12.

- SELLING WHAT YOU KNOW SUCCESSFULLY: MARKETING HUMAN SERVICES (repeated from session #2)
  Conference room, 1900 Building

  Michael Farr

2:50 PM "WHAT'S GOING ON AT THE NATIONAL CENTER?"
Room 1A, 1960 Building

Participants met and exchanged information with National Center Division Associate Directors or division representatives over refreshments.

Development	Lucy Campbell-Thrane
Evaluation	N. L. "Mac" McCaslin
Field Services	Cathy Ashmore
Information Systems	Joel Magisos
International	Dan Dunham
Personnel Development	Ferman Moody
Research	John Bishop
Special Projects	Jim Long

3:40 PM SESSION #4. Choose one workshop.

- LISTENING TO LINK EDUCATION AND BUSINESS (repeated, session #7)
  Room 1A, 1960 Building

  Cheryl Peters
  Columbia Gas of Ohio

  To fully benefit from the information and expertise of business, educators must understand the "whys" and "hows" of corporate-developed educational programs. Participants learned how their input could help tailor educational programs to their own needs. The process is described in detail beginning on page 41.

- EDUCATIONAL SURVIVAL: LINKING INDUSTRY AND EDUCATION THROUGH PLACEMENT AND GUIDANCE SERVICES
  Room 1B, 1960 Building

  Ray Wasil
  Ohio Department of Education

  Communication, cooperation, and collaboration between business, industry, and education at the secondary and postsecondary levels are keys to the success of vocational education. These linkages can provide direction and input into target audience identification and the generation of relevant and timely data for use by vocational teachers and staff--a prime factor in dissemination.

Materials (including a film) developed by the National Association for Industry-Education Cooperation were used to stimulate involvement in this session. Participants discussed how to better involve business and industry personnel in voc ed planning and implementation and voiced concern over cost. Participants felt there was a need for stronger efforts to strengthen these linkages.

- THE ALPHABET SOUP OF DISSEMINATION, OR "ACRONYMS FOR CHOWDERHEADS" (repeated from session #1)
  Room 1C, 1960 Building

  Rebecca Douglass
  Randi Maxfield

- HOW ABOUT COMMUNICATING?
  Auditorium, 1900 Building

  Tom Hindes
  Instructional Materials Lab (Ohio)

  Why aren't we "communicators" instead of disseminators, diffusors, facilitators, or linkers? After all, dissemination-related jobs are usually created because of a need to communicate or because of a communication failure. Points made during this light-hearted presentation included the "motion" involved in "promotion", information as power, the possible effects of economic competition between states on the sharing of information, the accessibility of curriculum labs to night students, and the stages educators go through in choosing materials for use.

- HOW TO GET YOUR INNOVATIVE IDEAS APPROVED
  Conference room, 1900 Building

  Dan Fahrlander
  National Center

  The most successful disseminators and linkers in vocational education may be those who have the best and most innovative ideas. But even the most creative ideas must gain administrative acceptance if they're ever going to work. This workshop was geared to acquaint participants with a handy guide in the form of a flow diagram to help them improve their chances of getting their dissemination ideas approved by both peers and administrators. An illustrated discussion technique was used to help participants understand the eight primary questions that can become barriers to getting one's ideas approved. Additional information about the guide for getting ideas approved is included in Appendix B, pp. 43-50.

4:30 PM ADJOURN

6:30 PM NO-HOST GET TOGETHER
Custer Room
The Inn on the Lane

Thursday, November 18, 1982

AM Chairperson: Alta Moser

8:15 AM ANNOUNCEMENTS

8:30 AM SESSION #5. Choose one workshop.

- TAILORING NDN APPROACHES TO STATE VOC ED NEEDS (repeated, session #12)
  Room 1A, 1960 Building

  Mary Lou Palmer
  Nebraska Department of Education

  Martin McConnell
  Tennessee Department of Education

  Representatives of the National Diffusion Network provided conference attendees with an orientation to the Network, how it has developed, and what it can offer state vocational education dissemination and program improvement efforts. The Joint Dissemination Review Panel (JDRP) process was also explained and examples of recently validated programs given. A handout entitled "Effective Diffusion Through Technical Assistance Leadership" (pp. 51-59) explains the NDN model, which was originally based on the process used by the agricultural extension services. Bill Phillips, Ohio's NDN state facilitator, and Ann Nunez, developer/demonstrator for the recently validated CPS (Career Planning and Support) system, were introduced during the session.

- LOUISIANA'S AUTOMATED VEDS
  Room 1B, 1960 Building

  Barbara Green
  Robert Nicols
  Louisiana Department of Education

  The state of Louisiana has formulated a method for automating the vocational Education Data System (VEDS). Because the state's previous system was totally manual and time-consuming, the Research Coordinating Unit (RCU) of the Office of Vocational Education and the Bureau of Management Information Systems worked together at the parish and state levels to develop an automated approach. The intent of this workshop was the sharing of ideas that may help other states as they strive to ease the burden of data collection and dissemination as it relates to VEDS. After an explanation and slide presentation of the approach, participants and presenters shared ideas on how Louisiana and other states handle VEDS and addressed questions concerning enrollment, completions, and the

student population. In addition, problems involved in putting large numbers of students on computer, designing databases, and tracking students were discussed.

- SHOWCASE OF EXCELLENCE: A STATEWIDE SYSTEM FOR DISSEMINATION/DIFFUSION IN POSTSECONDARY OCCUPATIONAL EDUCATION (repeated, session #9)
  Room 1C, 1960 Building

LaVerna Fadale
Gene Winter
State University of New York at Albany

New York's Showcase of Excellence was developed during a three-year project to mount a statewide dissemination system for vocational educators at two-year colleges. The system was developed in two phases: development and trial (two years), and field testing and final revision (one year). The Showcase approach includes seven stages: call for nominations, selection of judges, nominee distribution, judging process, dissemination and diffusion, replication assistance, and impact analyses. During implementation, the system and its results were studied to determine effectiveness and outcomes.

This workshop described the development and implementation phases and detailed how this peer-to-peer dissemination and utilization process works. As components of the system were explained, related materials were used to further illustrate how it operates. This workshop served the dual purpose of information sharing and product feedback from dissemination professionals to the New York staff, with workshop participants offering suggestions on how best to sequence and format the final product under development to disseminate awareness of the system.

- WHAT WE KNOW ABOUT LEVELS OF COOPERATION BETWEEN EDUCATION AND BIL
  Conference room, 1900 Building

Morgan Lewis
National Center

Vocational educators and disseminators need to learn about the current level of involvement of vocational education with business, industry, and labor (BIL). This workshop was organized to present and share such information and to provide an orientation to organizations and resources that can be drawn upon to foster increased education/BIL cooperation and how to disseminate information about these organizations and resources. Several publications were used in the workshop and provided to participants: Business, Industry, and Labor Input in Vocational Education Personnel Development (available from National Center Publications Office) and the Handbook for Industry-Education Councils (courtesy of the National

Association for Industry-Education Cooperation). Each participant was asked to think of methods for increasing education/BIL cooperation, and the list of these suggestions is included in Appendix B with other selected data on cooperation between vocational education and business, industry and labor. See pp. 61-71.

- VECM: VOCATIONAL EDUCATION CURRICULUM MATERIALS DATABASE/MILITARY CURRICULA (repeated, session #12)
  Library, 1900 Building

  Shirley Chase
  National Center

  Many vocational educators have not yet become aware that the new Vocational Education Curriculum Materials (VECM) database is in operation to help them. This workshop was intended to create an awareness of this new database and its contents, which include a wide range of vocational curriculum materials as well as military curricula. The workshop also offered beginning instruction on how to enter product information into the computerized database and how to retrieve information from it via online computer terminals. Workshop participants had an opportunity to discuss applications of VECM to their work and to try their hands at the computer terminal keyboard to retrieve information from the database. Additional information about this workshop is provided through selected handout materials included in Appendix B, pp. 73-75.

9:30 AM SESSION #6. Choose one workshop.

- DISSEMINATING FOR CAREER ED IN CALIFORNIA
  Room 1A, 1960 Building

  Barbara Gaughen
  California Career Education Dissemination Center

  This session informed participants about the development of the California Career Education Dissemination Center (CCEDC) and the services it offers. This "one-stop" center brokers up-to-date career and vocational resources (pre-school through retirement) for schools, communities, business, and government. At CCEDC, both material and human resources are abstracted, classified, and retrieved for client-requesters, using a Hewlett Packard 3000 computer. Clients anywhere in the country can receive printouts of materials and consultant contacts, searched to their needs, within seven days. The CCEDC coordinator also invited vocational educators to record their resources, materials, and expertise with CCEDC for further dissemination.

- ENTREPRENEURSHIP EDUCATION IN VOC ED (repeated, session #8)
  Room 1B, 1960 Building

  Cathy Ashmore
  National Center

  Just who in education sees it as THEIR RESPONSIBILITY to prepare young people to run their own businesses? Vocational educators have been identified as the logical group to infuse entrepreneurship education into the total occupational curriculum. This workshop focused on program ideas to encourage the youth of our nation to get excited about entrepreneurship, see its pitfalls, and plan for the future. National Center products on entrepreneurship were reviewed and information shared on the activities of the Department of Education Task Force on Entrepreneurship Education, on workshops offered by the National Academy, and on the opportunities vocational educators have to participate in this nationwide economic development activity.

- INSTALLING MICROCOMPUTER CURRICULA (repeated from session #1)
  Room 1C, 1960 Building

  Gary Lloyd

- USING R&D PRODUCTS IN STRATEGIC PLANNING AND HUMAN RESOURCE DEVELOPMENT (repeated from session #2)
  Auditorium, 1900 Building

  Warren Groff

- R&D IMPACT EVALUATION
  Conference room, 1900 Building

  William Hull
  Kay Adams
  National Center

  Participants in this workshop, primarily directors or staff members of state research coordinating units, were involved in discussions to refine criteria for assessing the impact of research and development. The organizers exposed participants to R&D impact criteria, ways to attain them, and pointers on how impact can be measured. Sources of relevant research findings were shared and problems relating to the practical application of impact technology were identified. Among the problems identified were (1) the failure to identify R&D users who need to be involved early in project activities, (2) the need to check R&D output against industry standards, (3) the lack of feedback (formal and informal) from pilot test users, (4) the excessive time and cost of R&D in relation to available resources, and (5) the frequently incomplete implementation of innovations. Participants rated a proposed set of impact criteria on its degree of perceived importance. The topical outline used during this workshop is included in Appendix B, pp. 77-82.

10:20 AM BREAK AND BROWSE
Room 1A, 1960 Building

10:40 AM SESSION #7. Choose one workshop.

- TELECONFERENCING FOR VOC ED DISSEMINATION IN FLORIDA (repeated, session #11)
  Room 1A, 1960 Building

  Dorothy Bouie
  Florida Department of Education

  Designed to present the experiences of Florida vocational educators as they attempt to reach more people at less cost through teleconferencing, this introductory slide presentation and discussion emphasized key concepts, program design, and equipment. A live audio teleconference (with synchronized slide presentation) was then held with five vocational educators who explained Florida's approach to implementing a teleconferencing network, how the concept was introducted to constituents, and teleconferencing advantages and disadvantages.

  Various advantages were presented: audio permits rapid communication, with less travel; audio meetings are particularly satisfactory for communication tasks which stress information exchange and problem solving; audio permits accurate communication and controlled participation; and audio may offer subtle advantages to some participants in intense communication situations such as bargaining and negotiation. Some disadvantages were also presented: audio meetings are not satisfactory overall for tasks which stress interpersonal communication; audio can create an impersonal, uncooperative communication environment; audio meetings are personally demanding; users typically have negative expectations about audio; and audio may be less productive than other media.

- THE NITTY GRITTY OF WORKSHOPS (repeated from session #1)
  Room 1B, 1960 Building

  Mark Newton
  Barbara Kline

- LISTENING TO LINK EDUCATION AND BUSINESS (repeated from session #4)
  Room 1C, 1960 Building

  Cheryl Peters

- COMPARING DISSEMINATION AND UTILIZATION APPROACHES OF OTHER NATIONS
  Conference room, 1900 Building

  Dan Dunham
  National Center

  This presentation focused on methods, procedures, and problems occuring in other countries, particularly in second and third world nations, and on ideas for future international networking.

- THE RESOURCE AND REFERRAL SERVICE'S ONLINE DATABASE, PRODUCTS, AND SERVICES
  Library, 1900 Building

  Ruth Gordon
  National Center

  The Resource and Referral Service has mounted a new database: Resource Organizations and Meetings for Educators (ROME). ROME contains descriptions of nonprofit professional organizations, research organizations, professional organizations, advocacy groups, and agencies in education and related disciplines. Over 500 organizations are represented in the database, with 1,000 anticipated by November 1983. ROME also includes professional meetings and publications.

  The purpose of this workshop was to provide an awareness of the Resource and Referral Service and the ROME database as a part of a national dissemination system offering products, services, and access to an online storehouse of information for educators of all kinds. The use of the online database was demonstrated, and workshop participants learned how they might use ROME as a tool for responding to requests at home. Sample searches of the database based on participants' questions were conducted during the conference at large. More information about the Resource and Referral Service and ROME is included in Appendix B, pp. 83-84.

11:30 AM LUNCH
Room 1A, 1960 Building

PM Chairperson: Joel Magisos

12:30 PM PUBLICIZING THE GOOD RESULTS OF VOC ED
Room 1A, 1960 Building

Woody Woodhull
President
Public Information and Education Services, Inc. (Montana)

During this large-group session, Woodhull gave an overview of the latest winners of the "Outstanding Vocational Program" awards given by U.S. Secretary of Education Terrel H. Bell, and how those programs are being publicized. The public relations aspect of dissemination was further illustrated with media spots from the New York Advisory Council for Vocational Education and other agencies. Points made during this presentation included an explanation of institutional advertising and its uses, the notion that there is more to dissemination than awareness and that people must be given enough information to make them want change, and sample media packages and the techniques needed to produce them.

1:30 PM SESSION #8. Choose one workshop.

- HOW TO DEVELOP AND USE A STATE D&U MANUAL (repeated from session #3)
  Room 1A, 1960 Building

  Carol Sanders

- VOCATIONAL BASIC SKILLS PEER TEACHING (repeated from session #3)
  Room 1B, 1960 Building

  David Chandler
  Carl McNair

- LINKAGES, ARTICULATION, AND OUTREACH: COPING IN A LARGE CITY VOC ED SYSTEM (repeated, session #10)
  Room 1C, 1960 Building

  Robert Clinkscale
  Casmira DiScipio
  Cleveland Public Schools

  Technical and vocational education programs face real challenges to remain strong and durable in a large city school system ordered by federal district court to desegregate. In this workshop, the technical-vocational education director and the directing supervisor of such a school system explained these challenges and described the factors that affect the delivery system of vocational education in a decentralized system. Some emphasis was given to the political skills necessary to sustain viable vocational programs in the face of tumultuous distractions. The presenters discussed organizational structure, recruitment controls, entrance criteria, and business/industry/continuing education in relation to city agencies.

- ENTREPRENEURSHIP EDUCATION IN VOC ED (repeated from session #6)
  Auditorium, 1900 Building

  Cathy Ashmore

- WATER QUALITY EDUCATION AND TRAINING MATERIALS FOR VOCATIONAL EDUCATION
  Library, 1900 Building

  Bob Howe
  ERIC Clearinghouse on Science, Math, and Environmental Education (Ohio)

  This session acquainted vocational educators with the IRIS database, which contains more than 7,000 education and training materials on water quality. Discussion focused on methods of access: standard computer access through database vendors Dialog and BRS, and online microcomputer access via the CompuServe Information Service. Advantages of the latter include convenience and cost, which can be as low as $4.00 per hour. Users of IRIS, the ERIC system, and similar databases can expect an increased emphasis on access by microcomputer in the future.

2:20 PM BREAK AND BROWSE

2:40 PM SESSION #9. Choose one workshop.

- D&U IMPACT ASSESSMENT: A STATE LEVEL APPROACH (repeated, session #11)
  Room 1A, 1960 Building

  Harold Cramer
  Florida Division of Vocational Education

  The state of Florida has been using an approach to dissemination impact assessment that employs the personal interview technique most prominently. This presenter detailed the scope, organization, instruments, and results of their assessment of dissemination impact. The conclusions drawn have pointed to needed changes in the statewide vocational education dissemination process, especially with regard to the dissemination of management skills needed for better product utilization training. More information about Florida's impact assessment with the division of vocational education is provided in Appendix B, pp. 85-95.

- ACROSS THE NATION AND AROUND THE WORLD; A COMPARISON OF INNOVATIVE TECHNIQUES USED TO DISSEMINATE EQUITY RESOURCES IN SWEDEN AND NEW YORK
  Room 1B, 1960 Building

  June Hubner
  Monroe County BOCES #1 (New York)

  Through the use of slides, illustrations, and hands-on activities, this workshop showed how the Swedish Institute and the New York State Education Department's Office of Special Programs use local, national, and international networks to disseminate and retrieve equity information in the school, home, and workplace. During a simulation, participants were asked to devise a dissemination plan using technical examples at hand.

- GIVING A ONE-DAY, DRIVE-IN STATE DISSEMINATION/RFP CONFERENCE (repeated from session #2)
  Room 1C, 1960 Building

  Joe Kelly
  Priscilla Walsh

- OCCUPATIONAL EDUCATION DISSEMINATION IN NEW YORK STATE (repeated from session #5)
  Conference Room, 1900 Building

  Gene Winter
  LaVerna Fadale

- HOW TO PREPARE FOR A SEARCH NEGOTIATION
  Library, 1900 Building

  Judy Wagner
  National Center

  This session consisted of an overview of the ERIC system and database contents and information on the RIVE database in addition to pointers on conducting search negotiations and developing search strategies. For further information, consult the "Summary of Significant Indexing Rules," "Search Negotiation Strategies," and "Tips for Locating Descriptors" in Appendix B, pp. 97-98.

3:40 PM SESSION #10. Choose one workshop.

- LINKAGES, ARTICULATION, AND OUTREACH: COPING IN A LARGE CITY VOC ED SYSTEM (repeated from session #8)
  Room 1A, 1960 Building

  Bob Clinkscale
  Casmira DiScipio

- FROM CABINS TO CASTLES: A TEACHER CENTER/VOC ED EXPERIENTIAL PROGRAM (repeated from session #1)
  Room 1B, 1960 Building

  Ken Richards

- HOW TO RUN AN EFFECTIVE STATE D&U PROGRAM ON ONLY $50,000 A YEAR
  Room 1C, 1960 Building

  Jerry Day
  Maryland State Department of Education

  Resources always seem too scant when enthusiastic disseminators go about setting up a statewide dissemination and utilization program. In this workshop, methods and scenarios were presented to demonstrate that dynamic statewide dissemination of vocational education can be accomplished on very limited budgets. But emphasis must be placed on establishing linkages and strong public relations. Keeping tabs on the impact of disseminated products becomes important as well. Through the slide-tape, case studies, and informational handouts used in this workshop (not to mention the door prizes and certificates awarded), participants gained insights into how the Maryland Vocational Curriculum Management System might be adapted to meet their particular state needs. More information about the Maryland Vocational Curriculum Management System is provided in a selected workshop handout included in Appendix B, pp. 99-100.

- A SOICC DIRECTOR FOLLOWS UP VOC ED COMPLETERS (repeated, session #11)
  Auditorium, 1900 Building

  J. B. Morton
  Oklahoma State Occupational Information Coordinating Committee

  Existing records from state employment security commissions and similar agencies can be used efficiently and cost-effectively to provide employment status, salary, and other information on voc ed program completers. The follow-up data is also useful as a public relations and recruitment tool. See Appendix B, pp. 100-105, for an executive summary of the method as it was applied in Oklahoma, including a comparison with the traditional follow-up survey.

- LOOK WHAT YOU CAN DO WITH A COMPUTER TERMINAL!
  Library, 1900 Building

  Carl Oldsen
  National Center

  New communication technologies offer the greatest support to vocational education dissemination and linking. But at the same time, they may become a source of confusion among disseminators who are not sufficiently aware of the technologies and their promise. The purpose of this workshop was to provide awareness of the subject matter available on a variety of machine readable, terminal-access databases, particularly those developed by the Information Systems Division of the National Center for Research in Vocational Education. The workshop provided information on the operation and use of computer-based message switching systems as well. Visuals were used to illustrate and explain the computer-based message switching system, its operation, the equipment and training required, costs associated with the system, and present and potential participants. Several questions were considered regarding the technical operation of the system, procedures for log-on and log-off, and membership requirements. Further information was provided on the RIVE database, its history, size, data elements, teaching capability, its availability as a public database, and its relationship to other database building activities such as VECM, the National Center Clearinghouse, and the military curriculum collection.

4:30 PM ADJOURN

6:30 PM NO-HOST SOCIAL HOUR
Sherman Room
The Inn on the Lane

7:30 PM CONFERENCE DINNER THEATRE
Custer-Sheridan Room
The Inn on the Lane

Studs Terkel's Working is a collection of more than one hundred interviews with people about their jobs. This book grew from hundreds of interviews concerning what people do for a living and how they feel about what they do. In talking about his book and the musical adapted from the book, Terkel has said:

> It's about a search for daily meaning as well as daily bread, for recognition as well as cash, for astonishment rather than torpor; in short, for a sort of life rather then a Monday through Friday sort of dying. Perhaps immortality, too, is part of the quest. To be remembered was the wish, spoken and unspoken, of these heroes and heroines. In a sense, they were speaking for all of us.

This major event of The Fifth Nationwide Vocational Education Dissemination Conference was a live dinner theatre presentation of excerpts from the musical Working, adapted by Stephen Schwartz and Nina Faso with songs by Mary Rodgers (widow of Richard Rodgers of Rodgers and Hammerstein), popular singer and musician James Taylor, and others. The excerpts were performed by the Worthington Community Theatre by special arrangement with Music Theatre International, and conference particpants enjoyed a close-up, firsthand look at how work concepts are disseminated through the arts--in this case, through music, song, and dance in a theatrical production. Following the conference, at least four conferees have been pursuing the possibility of inviting neighboring community or regional theatre groups to perform the musical Working at conferences to be held in New York, North Carolina, California, and Washington, DC.

Friday, November 19, 1982

AM Chairperson: Jay Smink

8:15 AM ANNOUNCEMENTS

8:30 AM SESSION #11. Choose one workshop.

- TELECONFERENCING FOR VOC ED IN FLORIDA (repeated from session #7)
  Room 1A, 1960 Building

  Dorothy Bouie

- A SOICC DIRECTOR FOLLOWS UP VOC ED COMPLETERS (repeated from session #11)
  Room 1B, 1960 Building

  J. B. Morton

- TEN D&U TRICKS THAT WORK
  Room 1C, 1960 Building

  Jerry Day
  Maryland State Department of Education

  Generating effective dissemination and utilization techniques that improve vocational education without a lot of red tape was the objective of this session. A small-group brainstorming session generated over thirty suggestions on packaging, workshops, and other techniques that ranged from the simple and inexpensive to complex efforts requiring substantial funding. As an outgrowth of the session, a booklet entitled "D&U Tricks That Work" has been slated for publication in January 1983.

- D&U IMPACT ASSESSMENT: A STATE LEVEL APPROACH (repeated from session #9)
  Conference room, 1900 Building

  Harold Cramer

9:30 AM SESSION #12. Choose one workshop.

- OPERATING A STATEWIDE COMPUTERIZED INFORMATION RETRIEVAL SERVICE (continued from session #3)
  Room 1A, 1960 Building

  Gloria Kielbaso
  John MacKenzie
  Fred Manley

- TAILORING NDN APPROACHES TO STATE VOC ED NEEDS (repeated from session #5)
  Room 1B, 1960 Building

  Mary Lou Palmer
  Martin McConnell

- VECM: VOCATIONAL EDUCATION CURRICULUM MATERIALS DATABASE/MILITARY CURRICULA (repeated from session #5)
  Library, 1900 Building

  Shirley Chase

- USING QUALITATIVE METHODS IN EVALUATING DISSEMINATION PROGRAMS AND ACTIVITIES
  Conference room, 1900 Building

  Floyd McKinney
  National Center

  Even though many vocational education disseminators and linkers may not be directly involved in the evaluation of dissemination programs at large, they can benefit greatly from an enhanced awareness of how qualitative methods might be used by others in evaluating

dissemination programs and activities. This workshop was developed to help participants increase their ability to describe the differences between qualitative and quantitative methods of evaluation, to describe situations in which qualitative methods are appropriate, and to recognize the characteristics of effective interviews, observations, document and record reviews, and qualitative data analyses in vocational education dissemination. Through the use of visuals and group interaction, various related concepts were presented, and role playing and individual participation in interviewing and/or observation was used to convey information about effective voc ed evaluation techniques.

10:20 AM BREAK AND BROWSE

10:40 AM ADAPTATION/ADOPTION OF CURRICULA (PANEL)
Room 1A, 1960 Building

Joel Magisos, Moderator
National Center

Carol Laughlin
Massachusetts Vocational Curriculum Resource Center

Fred Manley
North Carolina Department of Community Colleges

Carol Sanders
University of Illinois

Joyce Sawatsky
Oklahoma State Department of Vocational and Technical Education

This panel discussion presented approaches being taken in several states to adopt or adapt curriculum materials, including identification, selection, modification, orientation, and training. It was explained that students interact more with curriculum materials while learning than with any other factor and that less than 2% of commercial materials have any test data regarding use. Research-based materials, on the other hand, are not getting into use as much as desired. Discussion of specific state approaches dealt with taking a planned, integrated approach to assessment of needs, identification and selection of materials, and implementation; the role of the resource center; and essential differences in the needs and interests of community college administrators and instructors, as well as policies on assistance in resource implementation. Attendees came to understand that different approaches, carefully planned, can be effective.

11:30 AM CONFERENCE WRAP-UP AND EVALUATION
Room 1A, 1960 Building

12:00 PM ADJOURN

APPENDIX A: KEYNOTE ADDRESS

PROGRAM IMPROVEMENT COORDINATION

Recommendations for Policy and Action

Prepared for the
NASDVE Curriculum Policy Committee

by

Larry G. Selland

Presented to the

Fifth Annual Nationwide
Vocational Education Dissemination Conference

November, 1982

PREFACE

Curriculum coordination was a major theme at the 1982 Fall Leadership Conference for State Directors of Vocational Education. Ferqueron (1982) addressed the issue of curriculum coordination, highlighting some of the problems and issues, followed by floor discussion which further illuminated these problems and issues. Four small discussion groups considered some solutions and the National Association of State Directors of Vocational Education appointed a committee of state directors to develop a draft policy for consideration by the state directors in December. This was to be followed by development of an action plan for consideration at the 1983 Spring Leadership Conference.

The purpose of this paper is to facilitate the work of the committee by advancing a set of recommendations for policy and action on program improvement coordination. It is to be regarded as a set of options for adoption, adaptation, or comparison. It may be used as the organizing framework or format for the NASDVE committee's report.

The basic premise of the recommendations is that curriculum should be an integral part of a more comprehensive plan for the coordination of program improvement and that coordination is worthy of financial support because it levers on so many other resources.

The presentor of this paper does not claim pride of authorship on these recommendations. Rather, the recommendation were developed through collaboration with professionals in the field. Numerous position papers, various documents, research findings, and other materials also provided a basis for the proposed policy and action recommendations.

POLICY RECOMMENDATIONS

Policy for curriculum coordination should be capable of impacting upon the full range of issues and problems attendant to this field of endeavor. Further, the

policy should be capable of relating curriculum coordination to other program improvement processes of which it is a part -- research, evaluation, dissemination, and personnel development. Most importantly, the policy should both guide and enable curriculum developers and other program improvement actors to achieve goals which are legitimately established.

Therefore, four policy statements are recommended which deal with the (1) relationship of curriculum to other processes, (2) need for coordination, (3) scope of coordination, (4) support services needed to achieve coordination, and (5) evaluation of curriculum efforts.

Relationship of Curriculum to Other Processes

Proposed Policy: *There should be a comprehensive plan for vocational education program improvement coordination which includes curriculum.*

In a presentation to a colloquium on vocational education research for the 1980's, Mills (1982) asserted that:

> We need to subscribe to a comprehensive approach to improving our vocational programs at every level. Program improvement needs to be looked at in terms of total activity or process -- not just in terms of its component parts such as those spelled out in past legislation.

Ideally, curriculum development efforts should be an outgrowth of research and evaluation which establishes need, content, and method. When completed, curriculum should be appropriately disseminated and personnel should be trained in its use. All of these processes should be coordinated so that they effectively and efficiently achieve stated program improvement goals.

At present these processes (e.g., research, evaluation, etc.) usually are planned and conducted separately and out of phase with each other. This often has resulted in unnecessary redundance, irrelevant results, and wasted resources. Therefore, a comprehensive plan should be developed which states these goals, establishes objectives and a timetable for each process, and details responsibility. To be maximally effective, a comprehensive plan should be developed at both national and state levels.

The current legislation permits developing such plans and the groups involved could do such planning if given supportive leadership at each level. Under leadership, comprehensive planning could take place at the national level and would result in:

- o clarification and prioritization of national program improvement goals,
- o orchestration of program improvement processes to effectively achieve program improvement goals,
- o designation of role and responsibility for various aspects of the plan, and
- o periodic assessment of results and emerging needs.

Similar planning at the state level, done with knowledge of the comprehensive national program improvement plan, would be more complementary, less redundant, and more effective. State resources could be directed more confidently toward mutually beneficial, cooperative efforts (e.g., consortia, multi-state projects) and toward state-specific program improvement needs (e.g., industry-specific programs, depressed areas).

Need for Coordination

Proposed Policy: *All curriculum development efforts should be coordinated to ensure maximum effectiveness and efficiency, eliminate duplication and interact with other program improvement processes such as research, evaluation, dissemination, and personnel development.*

More adequate coordination of curriculum development is needed in the United States. Present coordination efforts, notable as they are, do not have enough influence over the various groups which are directly or indirectly using federal funds to develop curriculum, nor do they coordinate with other aspects of program improvement. Among these various groups are consortia to which states belong, state instructional laboratories, state-administered curriculum development projects, and federally-administered curriculum development projects.

According to an unpublished analysis of state consortia activity, $1,205,225 is being spent annually on six consortia by 22 states. The consortia included in the analysis were AAVIM, IDECC, MAVCC, NVEPDC, SOCAT, VTECS, NNCCVTE, and NOCTI, even though not all charge membership fees.

Forty-six states operate 31 instructional laboratories and 43 resource centers. Although it is difficult to determine the cost of these, states expended $9,203,215 in FY1981 under P.L. 94-482, Section 133 (curriculum development), presumably in the instructional materials laboratories and elsewhere for the 297 curriculum projects reported. These projects were funded at an average of $30,987 and ranging from $2,115 to $255,374 (Budke and Gordon, 1982). Possibly some funds expended under P.L. 94-482, Section 131 (Research) and Section 132 (Exemplary and Innovative) also resulted in curriculum materials. In total $24,574,712 was expended on 899 state-administered program improvement projects.

The Office of Vocational and Adult Education, the National Institute of Education and the Fund for the Improvement of Post Secondary Education funded seven projects for a total of $1,714,174 during FY 1981 (The National Center Clearinghouse, 1982). However, Douglass (1982, p. 6) recommends that . . .

> The federal office should not be involved in curriculum development contracting. Shifting federal priorities and the constraints of the proposal review process mitigate against usable outcomes in which the quality justifies the expenses . . . Emphasis should be on a research program devoted to longer term study that will lead to improved curriculum development practices in the states and consortia. This should be accomplished by priority setting involving entities closest to the field . . .

The main point is that the coordination job is bigger than the consortia which account for less than ten percent of the total, but state- and federally-administered projects should be coordinated, also.

This probably cannot be done at any less than the national level.

Scope of Coordination

Proposed Policy: *Curriculum development should be coordinated within and between levels (i.e., national, regional, state) and with other program improvement processes (i.e., research, evaluation, dissemination, and personnel development).*

At the present time, there is no overall coordination of the curriculum development activities of the consortia, state-administered projects, or federally-administered projects. Consortia activities are governed by their boards, independent of each other and of the state- and federally-administered activities, except to the extent these are revealed by individual board members or taken into consideration by consortium staff. State departments of education may make independent decisions about curriculum development activities, possibly assisted in those decisions by the state liaison representatives (SLRs) and the regional curriculum coordination centers (CCCs). State research coordinating units (RCUs) provide the National Center with information about new curriculum development projects initiated under P.L. 94-482, Section 133 for inclusion in the computer-accessible Program Improvement Project data base. This data base may be used to determine what development is already underway.

The curriculum coordination centers and their SLRs maintain surveillance of the curriculum activities in their member states and endeavor to influence curriculum development decisions. Further, they cooperate in developing and maintaining the national data bases (i.e., ERIC and VECM) of information about completed curriculum materials, provide availability of materials, disseminate materials, and train users of curriculum. This regional leadership is needed and is serving a highly useful purpose.

With respect to national leadership and coordination, there is need to bring all of the elements together -- the National Center, the CCCs and their SLRs, and the state-level groups (e.g., research coordinating units, instructional materials laboratories, personnel development coordinators, curriculum development contractors). The NASDVE (1981, p. 7) position on the reauthorization of the Vocational Education Act stated that . . .

> A mechanism for curriculum coordination should be continued and strengthened. A national center for research in vocational education should serve as a central coordinating point for that system to foster linkages, improve communication, dissemination of products and sharing of resources.

On a broader base, the Florida RCU (1982) suggested that . . .

> At the national level the elected leaders of the National Research Curriculum Coordinating Unit, National Network for Curriculum Coordination in Vocational Technical Education, and the American Vocational Education Personnel Development Association could become an executive committee to represent comprehensive program improvement effort. Their major charge would be to develop a National Program Improvement Plan . . . Linkage between these groups could be enhanced if each were reflected in the other's National Program of Work. The National Center would have a role in this thrust. The Center would . . .
>
> a) Conduct reviews of the literature of the 50 states and territories;
>
> b) Provide the leadership for the annual meeting of the Executive Committee for Program Improvement; and
>
> c) Develop and maintain data bases and coordinate communication/conferencing process.

This latter position addresses the more comprehensive issue of program improvement, of which curriculum development is a part. Such a steering committee or national council, if properly constituted and adequately representative of the field, could provide overall direction. The National Center, if adequately supported, could serve as a resource for the committee, including networking, data base building, personnel development and evaluation.

Similar steering committees at the state level would be desirable, especially if linked through their state liaison representative to regional and national coordination efforts.

Support for Coordination

Proposed Policy: *Adequate support services should be established and maintained to ensure the nationwide spread, exchange, choice, and implementation of curriculum materials which have been developed at public expense.*

Vocational directors and teachers need to be able to find appropriate curriculum materials quickly and easily whenever there is need to start, revise, or upgrade a program. Curriculum developers also need access to materials and information about other projects underway if they are to avoid unnecessary duplication and improve existing materials. Therefore, there is need for a national data base of information about curriculum materials that can be accessed by computer. At present, the Educational Resources Information Center (ERIC) system provides computer-assisted access to a large body of print-type curriculum materials available on microfiche or at the original source. To augment this, the National Center and the Curriculum Coordination Centers (CCCs) are cooperatively developing a Vocational Education Curriculum Materials (VECM) data base which also makes non-print materials accessible by computer and available at the CCCs or at the original source. In support of this concept, Douglass (1982, p. 7) asserts that:

> States should be required, not simply encouraged, to submit curriculum developed with federal dollars to regional curriculum centers for review and submission into the VECM Data base.

The existence of ERIC and VECM data bases and the ability to make terminal-telephone linkages to computer vendors makes information about curriculum available to everyone. This system requires constant maintenance if it is to remain current and useful.

Vocational educators need an efficient, inexpensive way to communicate. This is especially true in curriculum coordination and dissemination activities where it is necessary to request information and materials, transmit information about materials to the data base and to users, and to transact system business. The National Center has provided leadership to the formation of a Computer-Based Message Switching (CBMS) network which now has thirty-two members including:

Research Coordinating Units
Curriculum Coordination Centers
National Association of State Directors of Vocational Education
American Vocational Association
Office of Vocational and Adult Education
National Center for Research in Vocational Education

CBMS is being used now as an electronic mailbox and will soon be used as an electronic bulletin board by these groups. CBMS is in concert with Douglass' (1982, p. 7) recommendation that . . .

> Study, design, and implementation of an electronic communication system among the states should be mounted immediately.

While more sophisticated means of communication are technically possible, CBMS requires the least initial and continuing costs at present. What is needed most now is more participation and protocols for use.

Evaluation of Curriculum Efforts

Proposed Policy: *All major curriculum efforts should be evaluated periodically.*

While the major problem in the coordination of curriculum may merely be its level, scope, and intensity, there continues to be reasonable doubt among some groups that present programs are needed or effective, or that enough is being done. For example, discussants at the 1982 NASDVE Fall Leadership Conference expressed reservations about consortia --whether they are all needed, why smaller states cannot belong, whether there are gaps and overlaps, and whether they are complementary or redundant. The National Network for Curriculum Coordination in Vocational-Technical Education (NNCCVTE) annually issues data about adoptions and the potential "savings" in development costs which result from NNCCVTE activity. Some question the logic of these claims and have reservations about the usefulness of NNCCVTE. State research coordinating units (RCUs) provide information about program improvement projects to the National Center (i.e., 899 in FY 1981, of which 297 were curriculum development projects). Information in this data base reveal some gaps and duplication. Completed products submitted to ERIC and VECM are of varying quality, and many do not have evidence of systematic development or validation.

In spite of these troublesome indications, there have been no significant third-party evaluations of the programs of the consortia, curriculum coordination centers, state-administered projects, or federally-administered projects.

There is need for a series of evaluation studies to determine the effectiveness and efficiency of various curriculum efforts and to provide information to policy makers and decision makers who authorize, fund and administer these programs. Such studies may reveal the need to increase or intensify some efforts, cut back others, and improve them all.

RECOMMENDATIONS FOR ACTION

The policy recommendations stated and justified in the previous section require an action plan. For example, the first policy statement requires that national and state focus be upon a comprehensive program plan, rather than curriculum. Other policies require more involvement in coordination at both national and state level. The scope of coordination activities suggested by these policies need considerable operational support throughout a year. Furthermore, the policies give a high order of priority to the periodic evaluation of all major curriculum efforts.

The following action recommendations take into consideration the recommended policies, the scope and nature of program improvement activities, and the present organiziations involved in program improvement today, namely:

- o state divisions of vocational education
- o state instructional materials laboratories and resource centers
- o state research coordinating units
- o personnel development coordinators
- o regional curriculum coordination centers
- o National Center for Research in Vocational Education
- o Office of Vocational and Adult Education.

The basic aim of the action recommendations is to bring all elements of program improvement, especially curriculum development, to bear upon national and state program improvement goals. The action would result in a National Program Improvement Council which would provide information to facilitate choices in the use of

limited funds by the various agencies and organizations engaged in vocational education program improvement. It is expected that these agencies and organizations would cooperate with the Council's coordination efforts for individual and mutual benefits to be derived from the increased effectiveness, and efficiency possible by following a comprehensive plan. Regional curriculum coordination centers and the National Center would continue to improve the important, specialized work in ensuring the relevance, quality, availability, and implementation of curriculum. Consortia would be encouraged to adjust their programs to complement each other and the agencies programs. States would be encouraged to establish program improvement councils.

The action recommendations, therefore, are related to (1) national coordination of program improvement, (2) operational support for national program improvement coordination, (3) regional coordination of curriculum activities, and (4) state coordination of program improvement.

National Coordination of Program Improvement

Recommendation: *Establish a National Program Improvement Council empowered by NASDVE to convene, establish goals, suggest studies, and recommend action to agencies and organizations engaged in program improvement activities.*

A National Program Improvement Council should be established to provide instructive guidance to the various agencies and organizations involved in vocational education program improvement. It would obtain year-around operational support through the National Center for Research in Vocational Education to facilitate its program of information collection, evaluative studies, communications linkages, and meetings.

The Council would be composed of representatives of the following organizations, agencies or groups:

- State directors of vocational education (chairperson of the Council)
- National Center for Research in Vocational Education (executive secretary of the Council)
- Curriculum coordination centers
- State liaison representatives
- Personnel development coordinators
- Research coordinating units

- o State instructional materials laboratories and resource centers
- o Office of Vocational and Adult Education (ex-officio member of the Council)

By the future, there may be merit in including on the Council representatives of:

- o Private-sector business or industry employers,
- o Supervisors of state vocational program,
- o Teachers and counselors from secondary and postsecondary institutions,
- o Vocational youth groups, and
- o Proprietary schools.

The Council would meet at least semiannually at times which best accommodate input following annual conferences of representative groups.

The Council would obtain input to its decisions from its representative members and from the National Center staff, establish program improvement priorities, develop a comprehensive program improvement plan, and recommend action to the Office of Vocational and Adult Education and other program improvement groups (e.g., consortia, CCCs, RCUs, IMLs, etc.).

Operational Support for National Program Improvement Coordination

Recommendation: *Obtain operational support for the Council through the National Center for Research in Vocational Education, which also should continue its other curriculum and program improvement activities.*

If the Council is to be effective, it will need operational support to gather information, conduct or manage needs assessment and evaluative studies, maintain communication linkage with other organiziations, and facilitate the meetings of the Council. The National Center is well qualified to provide this support because of its central location, national focus, national data bases (e.g., ERIC, RIVE, VECM), computer based message switching experience, other program improvement activities, and its continuing liaisons with the agencies involved.

The representative appointed to the Council by the National Center Executive Director would serve as its

executive secretary. Further, the National Center's representative would provide liaison between the Council and other National Center projects, data bases, and networks.

The National Center should continue to provide other curriculum and program improvement activities such as networking, data base building, personnel development and evaluation.

Regional Coordination of Curriculum Activities

Recommendation: *Continue regional coordination of state supported curriculum activities through the federally-funded curriculum coordination centers.*

The National Network for Curriculum Coordination in Vocational-Technical Education (NNCCVTE), composed of six federally-funded regional curriculum coordination centers and associated state liaison representatives, have been coordinating curriculum efforts of states on a regional basis. However, their coordination has been limited to state curriculum activities within their regions. They lack influence over federally-administered curriculum efforts, and receive very limited federal funding. In fact, most of the curriculum center budgets are supplemented by the host states.

The curriculum coordination centers should continue to improve their work on the relevance, quality and use of curriculum which will be enhanced by their participation in the broader purpose of the National Program Improvement Council. Their representative will have much to contribute to the Council's deliberations and subsequent program of work.

Their contributions to and cooperation in developing the VECM data base is especially important because only through such a data base can vocational educators know about the full range of curriculum materials available nationwide.

State Coordination of Program Improvement

Recommendation: *Encourage states to establish program improvement councils which will facilitate program improvement within the states and cooperate with the National Program Improvement Council and regional curriculum coordination centers.*

The Council would encourage the state directors of vocational education to establish state program improvement councils with responsibility for coordinating the program improvement activities in the states and articulating with other programs through the National Council.

The state councils would meet regularly to assess state needs, set state program goals and coordinate state program improvement activities. A state council could be composed of representatives of:

- o State director of vocational education (chairperson)
- o Research coordinating unit (executive secretary or director)
- o State liaison representative
- o Instructional materials laboratory(ies)
- o Resource center(s)
- o Personnel development coordinator
- o State supervisors of vocational programs
- o University teacher education departments
- o Local directors of vocational education
- o Local superintendents of schools
- o Vocational teachers and counselors
- o Vocational youth groups

CONCLUSION

The adoption of the proposed policies and implementation of the action recommendations will facilitate vocational program improvements throughout the United States. The limited public resources demand a coordinated effort--among the states and within each state. The rapid technological developments in business and industry demand that the vocational curriculum and the vocational instructors be current with the occupational practice. To do less is to shortchange the student and the potential employer.

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Mills, Joe D. "Vocational Program Improvement for the 1980's." (Presentation to the Colloquium on Vocational Education Research for the 1980's in Washington, D.C. on July 29-30, 1982).

Projects in Progress - FY 1981: A Report for the Coordinating Committee on Research in Vocational Education. Columbus, OH: National Center for Research in Vocational Education, June 1982.

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APPENDIX B: SELECTED PRESENTATION MATERIALS

Cheryl A. Peters

LISTENING TO LINK EDUCATION AND BUSINESS

Vocational education programs can benefit from the valuable information and expertise found in the business community. To maximize the use of these resources for educational programs, educators need to understand how a corporation develops an educational program. Three inputs are used to develop corporate-sponsored school programs: corporate objectives, corporate resources, and corporate assessment of educational needs. Corporations participate in educational sector activities to provide general community support, to develop positive public relations, and to create an awareness of the company's product. To meet these objectives, many corporations employ experienced educators to develop and coordinate programs utilizing the corporation's up-to-date, extensive information resources; the available financial resources; and printing/graphics facilities.

The educational programs developed reflect the company's perception of the wants of educators. Corporations determine the needs of educators through a variety of means such as educational association memberships, conference attendance, individual meetings with teachers, literature reviews, educational advisory council participation, discussion with other businesses, and educational program feedback. These three inputs--corporate objectives, resources, education needs assessment--are balanced in an unstructured cost/benefit analysis to develop educational programs.

Perhaps the most important key to a successful linkage is for educators to make that first contact and to ask corporations for programs and materials. After learning about corporate educational program development, session participants were given the opportunity to plan two contacts with businesses to request educational programs. To begin planning their requests, educators need to determine what programs and materials they want from business and how long they can wait to receive it. Educators need to identify the company and the educational contact within the company who can supply the wanted information. A local firm is the best choice in order to maximize the influence of the community support objective of the corporation. The corporate educational representative will generally be housed in the communications, marketing, or public relations departments. Educators in the session pointed out how critical it was to reach the person in the corporations who understood educational programs.

After determining whom to contact, educators must take the time to determine how the company will benefit from providing the program or material. All program ideas need to be sold to the corporation. The final step in planning the business request is to determine how the corporation will be made aware of the educator's need. For example, the contact could be made by letter, personal meeting, classroom visit, newspaper article, or a combination of various methods.

Planning this business contact is one key to developing a successful linkage with business. A second key is to expect development time. After the idea for the educational program is sold to corporate management, production must be scheduled. A third key for educators is to evaluate each program and to thank the corporate sponsor. Nothing goes further to ensure continued corporate support of educational programs than a note of appreciation.

To develop quality educational programs, corporations need to listen to the wants of educators for relevant and needed programs, and educators need to listen to the information available from business. Session participants indicated that corporate involvement could be enlarged and enhanced if educators were more aware of the business perspective on educational programs.

HOW TO GET YOUR IDEAS APPROVED

When I was a city director of vocational education, I was proud of my staff. They were younger than I was, self-directed, and full of energy. I usually provided leadership by just getting out of their way. They attacked, with a bewildering gusto, the everyday problems of inadequate facilities, disgruntled teachers, obsolete curricula, unappreciative board members, and more.

However, their enthusiasm was also a source of occasional tension when it collided with immovable objects in the superintendent's office or the board room. When Sir Isaac Newton wrote about the laws of physics, he stated that each action had an equal and opposite reaction. He could have been talking about the organization of any typical school system. It seems that teachers who try to do their very best to educate kids are discouraged by the administrators, and policy makers who are supposed to want the same thing. This is especially true regarding the development and implementation of new ideas--ideas for the improvement of course content, teaching methods, resources, teaching aids, and the like.

While my staff and I were convinced that our new ideas were great, these products of sheer genius (to be ranked with the invention of the transistor) were more often met with doubt and suspicion.

I began to realize that the hesitancy to accept new ideas was a symptom and not a disease. Each decision maker had his or her own set of "equal and opposite reactions." I remember tne superintendent asking me in a very loud voice, "Is this thing good for the kids?" Without waiting for a reply, he would continue, "If you can't demonstrate that it's good for the kids, I don't even want to hear about it." Discouraging? Perhaps. But he was simply demonstrating that a convincing argument must be made to the board and the community.

Between the teacher who wants to help kids and the board member who wants a safe and effective school system, there can be a million sharp teeth. In my mid-management role, I felt that I had to become more effective in reducing the potential for discouragement, bruised egos, and rejected ideas.

I put my superintendent's admonition about relevance to kids together with the board's staunch defense of the budget and the policy handbook and sketched a flow chart. This chart featured certain questions to be considered in the development of an idea--questions that you the teacher are going to be asked sometime in a jam-packed meeting and for which you must have good answers.

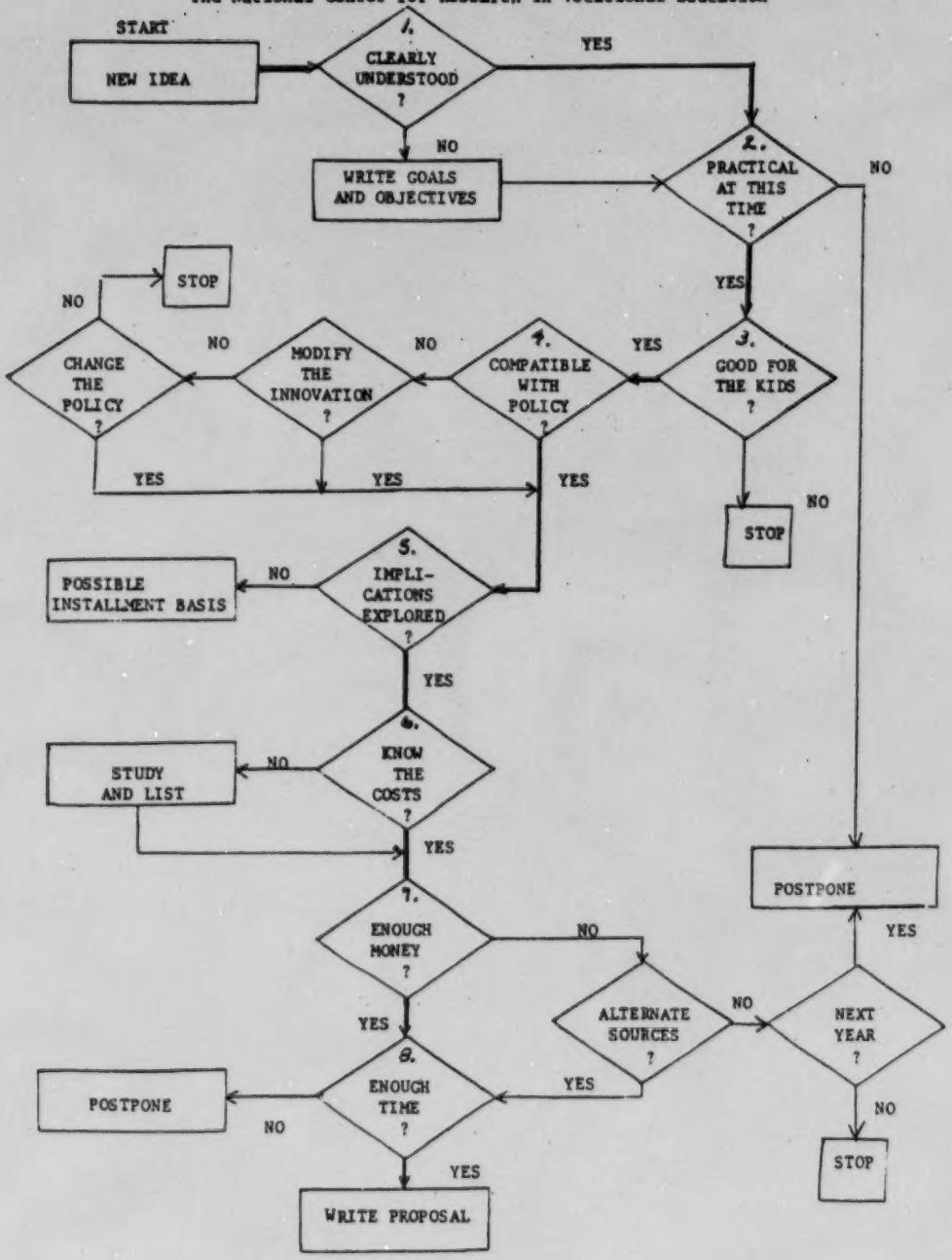
This chart will provide for the systematic development of an idea. Strengths and weaknesses can be explored; alternatives and long-range implications can be considered. It has eight questions designed to help you transform the most

fundamental expression of an idea into a complete proposal.

Study the chart and refer to the following pages for additional explanations. Each major decision point is numbered and the central direction through the chart is marked with a heavy line.

If you like it, pin it on the bulletin board for everyone to see and use. If you don't, please write and tell me why. Perhaps I can modify it and make it more useful for your situation. Good luck the next time you carry an idea up the mountain. When you get a sizeable merit pay increase, I'll know the reason why.

Daniel C. Fahrlander
The National Center for Research in Vocational Education



QUESTION NO. 1: Is the idea clearly understood? Are YOU sure YOU understand the purpose and intent of YOUR idea? Will those who must approve it understand it? Write the broad goals and specific objectives of the idea. Be sure you can answer the basic questions of who, why, when, where, and how. Can you state the purpose in one simple sentence?

QUESTION NO. 2: Is the idea practical at this time? What are the current pressures on the school system, its board and administration? It's going to be difficult to get the attention of anyone if your system is facing a civil rights suit, budget deficits, or a visit by an accreditation team. You may need to postpone it for a while.

QUESTION NO. 3: Is the idea good for the kids? Are you letting personal recognition, patronage, budget surpluses or other similar motives become the basis for generating ideas? Then, you are asking for trouble. The work of the school is and will continue to be helping kids learn to the best of their ability. Your idea will find acceptance to the degree that it helps achieve this end. Can you demonstrate that your idea will:

1. Increase the rate of learning?
2. Increase the scope of learning?
3. Decrease the cost of learning?
4. Enhance the learning of basic skills?
5. Improve student attitudes?
6. Improve school-community relations?

QUESTION NO. 4: Is the idea compatible with school system policy? Students, teachers, counselors, and administrators must all work together. Consistent policy and practice must be maintained throughout the system. Is your idea workable when considering the staff and faculty handbooks or the teachers' contract?

QUESTION NO. 5: Have all the implications been explored? Live animals in the biology lab is a good idea, but who is going to take care of them over Christmas holidays? That new seventeen inch press was a good buy. Too bad it won't fit through the print shop door. The building trades class wants to build a house out in the community, but you didn't have the answer to 330 questions from the board attorney. If the idea is totally new to the system, has it been implemented elsewhere in a similar setting? Is the idea likely to set a legal precedent? What about the safety angle and liability for theft or injury? Will your idea interrupt the routine of others or further their feelings of insecurity? Perhaps the idea should be tried on the installment basis.

QUESTION NO. 6: Do you know what the initial and long term costs will be? Try to make the cost of the idea as realistic as possible by including the possibility of these items:

1. Personnel--salaries, benefits
2. Equipment--purchase, rental, or donation
3. Supplies

4. Facilities--purchase, rental, renovation
5. Support services--payroll, computer time, research
6. Transportation--students, staff, things
7. Evaluation--periodic, end-of-project
8. Insurance--life, health, accident

QUESTION NO. 7: Where is the source of money? School systems seldom budget in anticipation of new and exciting ideas. In the current economic depression they are often just able to meet operating expenses. Can you demonstrate that in the long run this idea will save money? Are you willing to sacrifice some evenings and weekends getting this idea started? Can you squeeze some savings from existing budgets? If not, consider the potential for funding from outside sources such as state and federal agencies, community and civic organizations, and foundations. It may be necessary to put the idea off so that the cost can be included in the budget for next year.

QUESTION NO. 8: Is there enough time? This question is especially important if the idea must be implemented at the beginning of a quarter, semester, or academic year. Establish a time schedule which will provide adequately for such things as:

1. Board presentations and approvals
2. Budgeting
3. Staff certification and preservice training
4. Construction or renovation of facilities
5. Development of curriculum
6. Student recruitment and selection
7. Development of evaluation criteria

SUMMARY: The eight questions presented above have been designed to help the systematic development and assessment of an idea. Adequate answers to these questions will result in ideas that will not only be good for the kids but good for the community. The answers will serve as the basis for a proposal to be presented to the superintendent and the board of education. These questions are not all inclusive. Each school system will have its own set of concerns and you should feel free to add or delete questions as needed.

Effective Diffusion Through Technical Assistance Leadership

Fifth Nationwide Vocational Education
Dissemination Conference
National Center for Research in Vocational Education
Columbus, Ohio
November 17-19, 1982

Martin Ian McConnell
Tennessee State Facilitator
National Diffusion Network
University of Tennessee
Knoxville, TN

Effective Diffusion Through Technical Assistance Leadership

Providing effective technical assistance leadership is the not-so-simple matter of developing an atmosphere of credibility, trust, and sharing with individual clients. The technical assistance provider should be perceived by the client as a person who listens, understands his/her personal work-related concerns, provides a non-threatening, responsive support system and openly shares information. It is the responsibility of the technical assistance provider to understand the clients' work environment, the "climate," and the related goals and aspirations of the client. In addition, it is necessary to be aware of the obstacles related, but external, to the provider/client relationship.

Obstacles to technical assistance support systems which must be recognized and planned for include: persons in decision-making positions whose power rests on a policy of selective withholding of information; institutional protocol or the formal communications structure; the mind set of a bureaucracy; "turfs" and/or jurisdictions; the power of the informal communications structure and social economic geography.

The technical assistance provider, personally and professionally, must remember the simple, but salient concept that change is a process - not an event (Hall and Loucks 1976) and that constructive change begins with a clear, accessible communications structure that provides appropriate information at the propitious time (Achilles 1978) to the interested person or group.

The following categories describe a modus operandi for a technical assistance provider which takes time to establish, but spending the time up front insures that a quicker, more valuable and long lasting change takes place.

Do's

1. listen to what a client says
2. build on client strength
3. share yourself
4. support client efforts
5. know when to say "I don't know"
6. be trustworthy
7. keep your promises

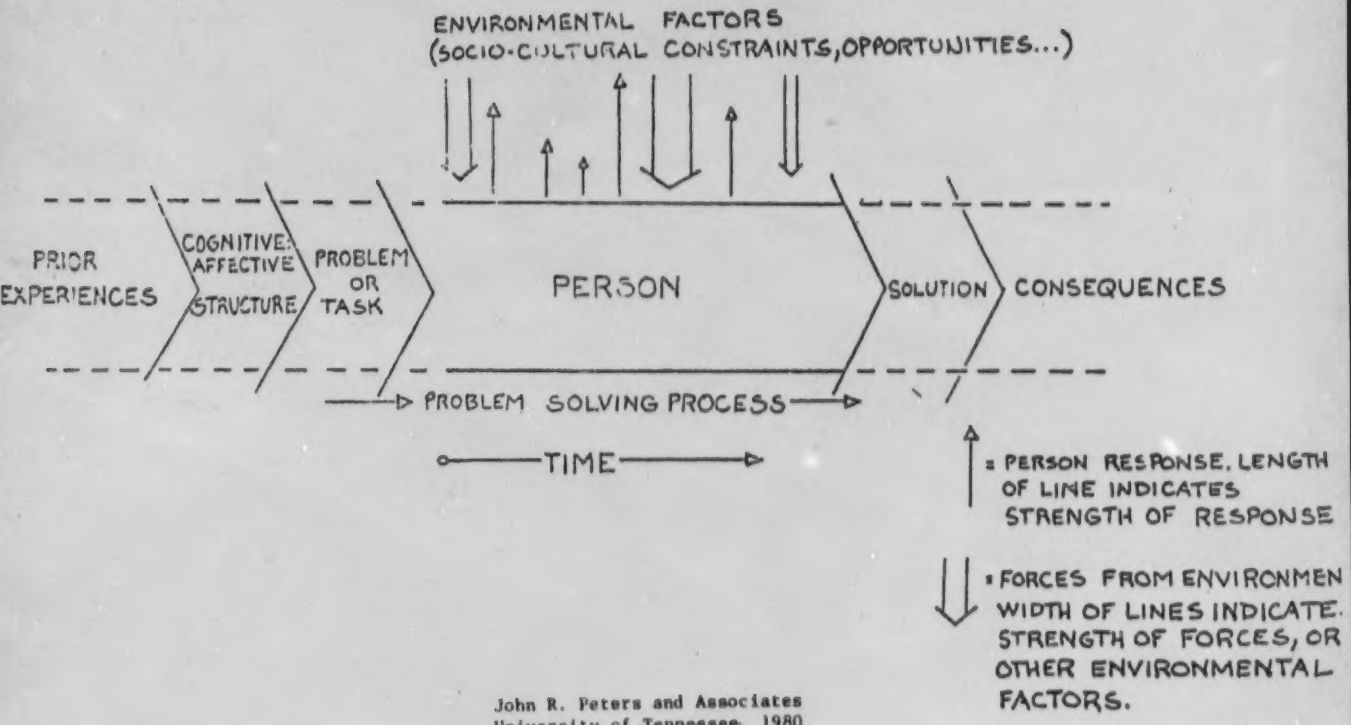
8. provide follow-up
9. clarify and define
10. have flexibility
11. be patient
12. carefully consume client time
13. have a consistent operational style
14. have a clear consistent message
15. give the message over and over
16. speak the appropriate language

Don'ts

1. be an expert or know-it-all
2. infer the client is wrong or incompetent
3. stress on a client's weakness
4. talk about other people or carry rumors
5. withhold information
6. interfere with local politics
7. assume that giving information is the answer - it is only the beginning
8. have preconceived or "canned" answers

Other change process factors (and there are many) which directly influence the effectiveness of technical assistance leadership by acting as filters or philosophical barriers involve the client's own perception as to his or her professional environmental situation or experiences. One is the personal problem solving methodology (Figure 1). Another is the particular planning process preferred by the client (Figure 2) and last mentioned here is the communication style of the client (Figure 3).

Figure 1. Generic Model of Problem Solving Process



John R. Peters and Associates
University of Tennessee, 1980

Figure 2 Summary of Three Perspectives on Innovation

	Technological	Political	Cultural
Fundamental principles and assumptions	Systematic, rational processes Explicit knowledge and techniques are applicable (e.g., RDD model) Passive consumer Cooperation is automatic Efficiency and accountability are issues Common interests and values are assumed	Factional groups engage in conflict and compromise Influence is exerted by persuasion, inducements, coercion Power struggles dominate Cooperation is problematic Legitimacy is issue There are conflicts over interests	Participants are seen as cultures and subcultures Innovation requires the interaction of separate cultures Effects of innovation are diffuse and intangible Cooperation is enigmatic Changes have different "meanings" Autonomy is issue There may be conflicts over values and interests
Focal points	The innovation itself The technique and its effects	Innovation--in--context Power and authority relationships	Context Meanings and values
Values	Common value framework Goal is predetermined Find the one best way to accomplish the goal	Values are shared by all Consensus is possible after conflict negotiation of interests	Values are shared within small groups Values are different between groups and may be in conflict
Ethics	Ethics are authoritative Innovation is in the common interest Technological change should be pursued aggressively	Ethics are contractual Innovation is not necessarily in the best interests of individuals and groups Compromise differences	Ethics are relativistic Innovation may have unanticipated consequences Do not impose on other groups
Image	Production Product-oriented	Negotiation Conflict-oriented	Community Meaning-oriented

House, Ernest R., "Three Perspectives on Innovation--The Technical, The Political and the Cultural", National Institute of Education, 1979. p. 23.

Figure 3

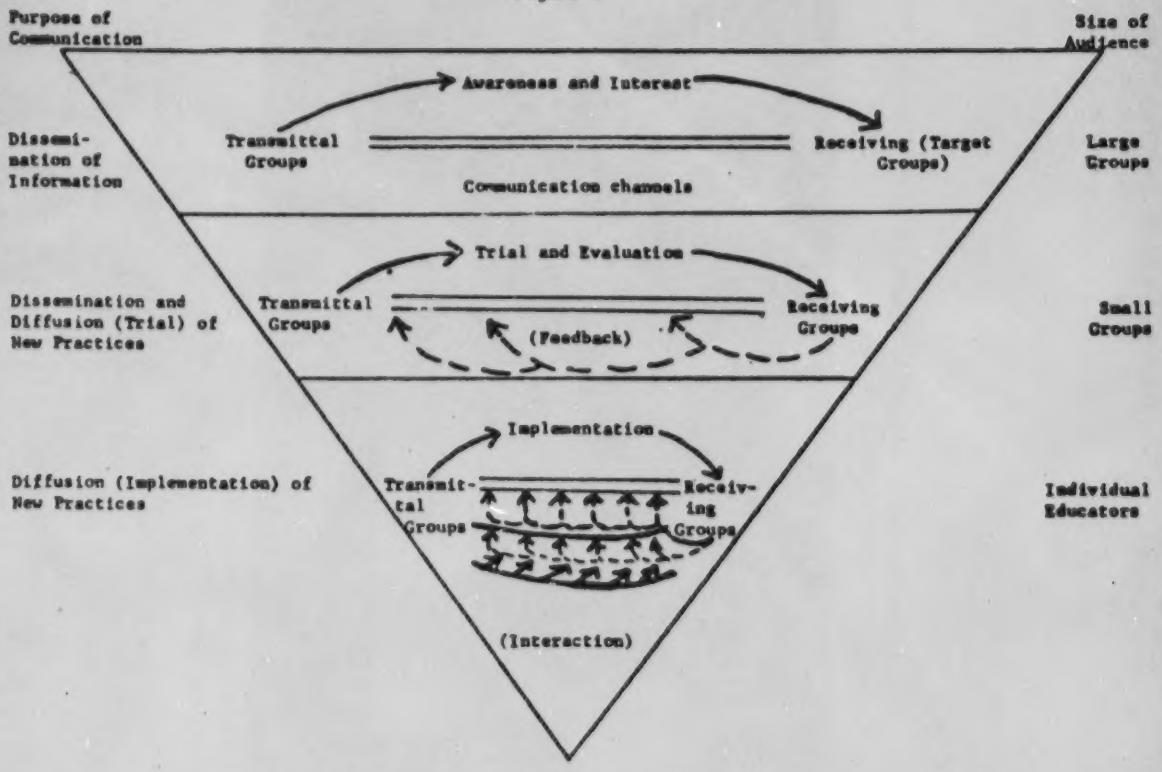


Figure - Flow of Communication During Stages of Change Process

Achilles, C.M. and Doug Norman, "Communication and Change in Education", Planning and Changing Vol V, No.3. fall 1974.

Definitions: An Introduction to "Change" Vocabulary

Adapt: To use a new product or practice with variations which make it more suitable for local conditions or to modify it for a target group for which it was not intended. (usual case)

Adopt: (or replicate the model) To use a new product or practice in exactly the same manner as the developer. (very rare)

Audience: Any one a change agent or linker can get to listen, read or understand that solutions are available. Found in airports, lounges and restaurants. Rarely available from 8 A.M. - 4 P.M. (see captive audience).

Captive Audience: A person or agency operating under federal court order or political pressure. Usually available from 8 A.M. - 12 midnight, 7 days a week.

Change: A process which moves a person or persons from a given set of practices to another.

Change agent: Generic label for a person, usually external to an organization, that assists the organization in problem identification, solution determination, resource generation, change management, evaluation and refocusing. Change Agents provide personal services. (neat people)

Client: A person or agency which uses the services of a linker or change agent.

Developer: Noun form of verb develop (also neat people). Energetic, capable doers who know how to learn, apply learning and share learning.

Development: A process which generates stategies and techniques to utilize knowledge in the world of work.

Diffusion: The spread of product or practice on a person to person basis. A knowledgeable person provides direct technical assistance to another person who wants to use the new product or practice.

Dissemination: The large scale, one way spread of information about new practices and products - usually impersonal - marginally effective at awareness level.

Dud: A person who is all blow and no go.

Education: "Education is a certified teacher teaching a standardized curriculum topic to a registered student in an accredited school." (lifted out of context from comments of Mites (1980 p. 41) discussing Mayer and Rowan (1978) study on symbolic success criteria). Isn't it terrible?

Innovation: A "new" practice, product or process.

Intervention: Anything "new" introduced into a stable situation. This could be a change in class schedules, an overhead projector, corporal punishment, team teaching or clinical supervision.

Linker: An external source person who may have a solution or provide directions on how to find a solution. A linker is not very involved in the change process.

Live one: A person within an agency which can get things done. Usually a person who understands that change is a process, takes time, organizes well and has clout. (also neat people)

Organizational change: A situation which exists when the persons who make up the society of the organization have moved from a given set of practices to another.

Practice: A process which is a product.

Process: The planned means to achieve a desired objective. Note: a process can be a product but not all products are processes. (All toadstools are mushrooms but not all mushrooms are toadstools).

Product: The tangible results of a developmental effort by someone or agency.

Research: Systematic investigation through which knowledge is generated.

Resource generation: Finding money or free consultants for clients.

Rock: A person or agency that has no problems and views change as negative. Frustrating obstacles for change agents.

Target group: The persons a product or practice is going to help.

Note: These definitions are the personal liability of the author which have been developed through the application of research done by Achilles, Wolf, Guba, Rogers, Clark, Lee, Crandall, Hall, Loucks, Fuller, Madey, Sieber, Trusty, Peters, Lovell, House, Havelock and others.

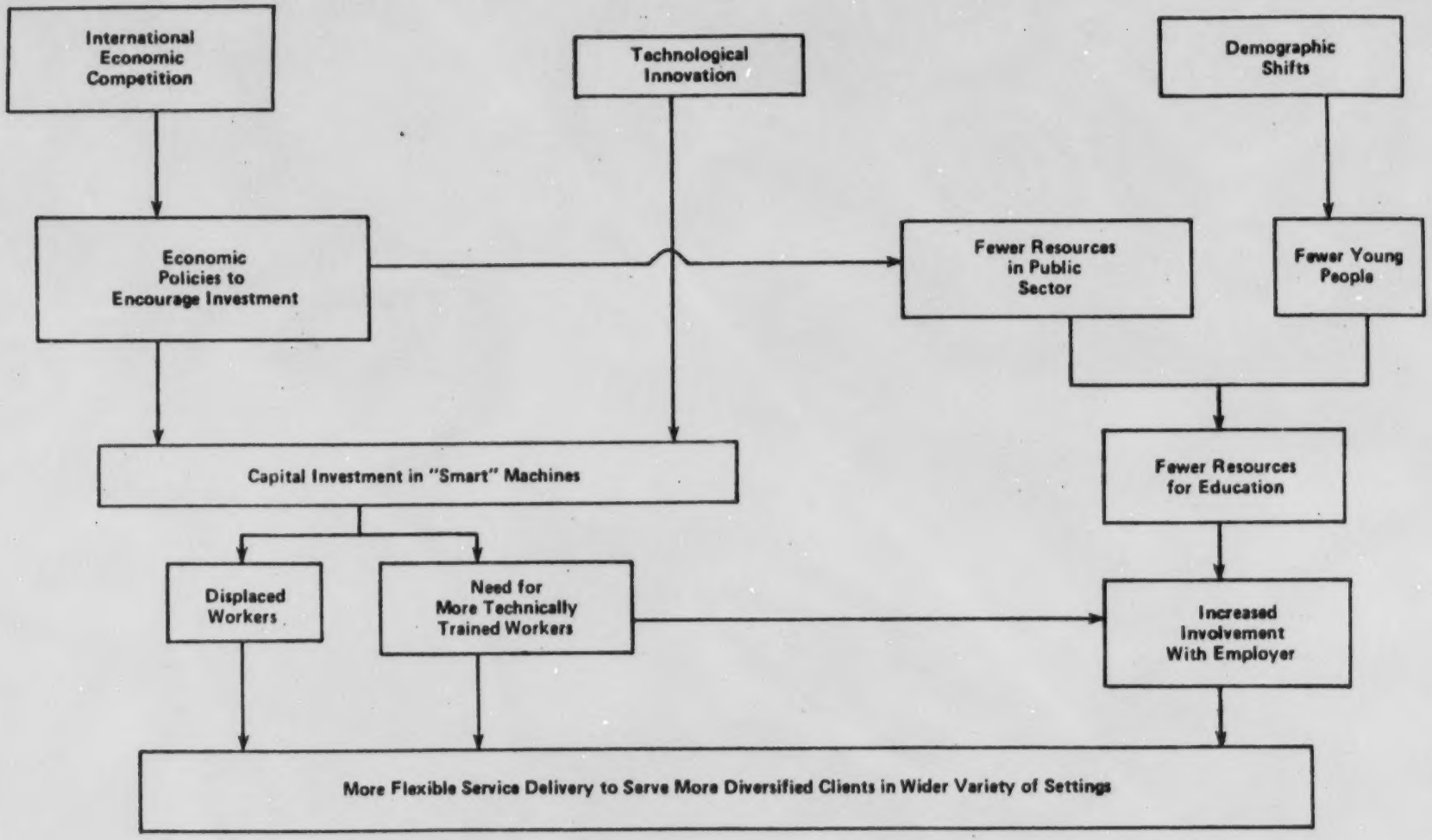
SELECTED DATA ON

COOPERATION BETWEEN VOCATIONAL

EDUCATION AND BUSINESS, INDUSTRY AND LABOR

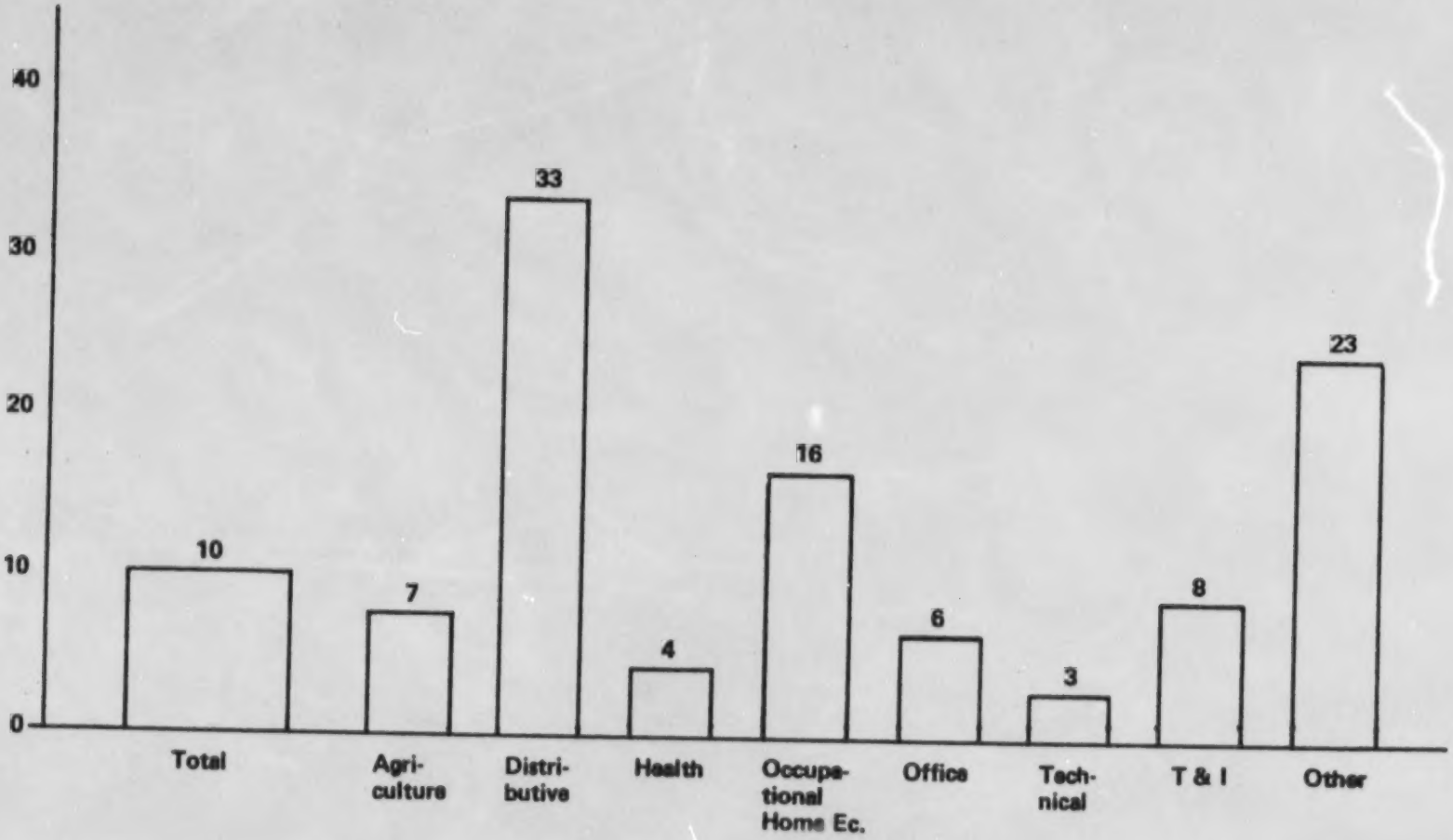
for

Fifth Nationwide Vocational
Education Dissemination Conference
November 17-19, 1982
National Center for Research in
Vocational Education
Ohio State University
Columbus, Ohio


International Economic Competition
Technological Innovation
Demographic Shifts
Economic Policies to Encourage Investment
Fewer Resources in Public Sector
Fewer Young People
Capital Investment in "Smart" Machines
Fewer Resources for Education
Displaced Workers
Need for More Technically Trained Workers
Increased Involvement With Employer
More Flexible Service Delivery to Serve More Diversified Clients in Wider Variety of Settings

Influences on vocational education in the 1980's.

PERCENT IN OCCUPATIONALLY SPECIFIC PROGRAMS IN COOPERATIVE PLACEMENTS BY SERVICE AREAS
School Year 1979–1980



SOURCE: Vocational Education Data System, National Center for Educational Statistics

COOPERATIVE EDUCATION ENROLLMENT BY INSTRUCTIONAL PROGRAM FOR SECONDARY AND POSTSECONDARY ENROLLMENTS, 1979-80

Instructional Program	Cooperative Education Enrollment	Total Enrollment in Occupationally Specific Programs	Percent of Cooperative Education Enrollment
Agriculture	25,332	384,940	7%
Distributive Education	198,380	601,275	33%
Health Occupations Education	19,996	455,129	4%
Occupational Home Economics	39,096	242,087	16%
Office Occupations	120,176	1,970,518	6%
Technical	10,282	387,117	3%
Trade & Industrial Occupations	149,373	1,792,052	8%
Other Programs	33,028	146,390	23%
TOTAL	595,663	5,979,508	10%

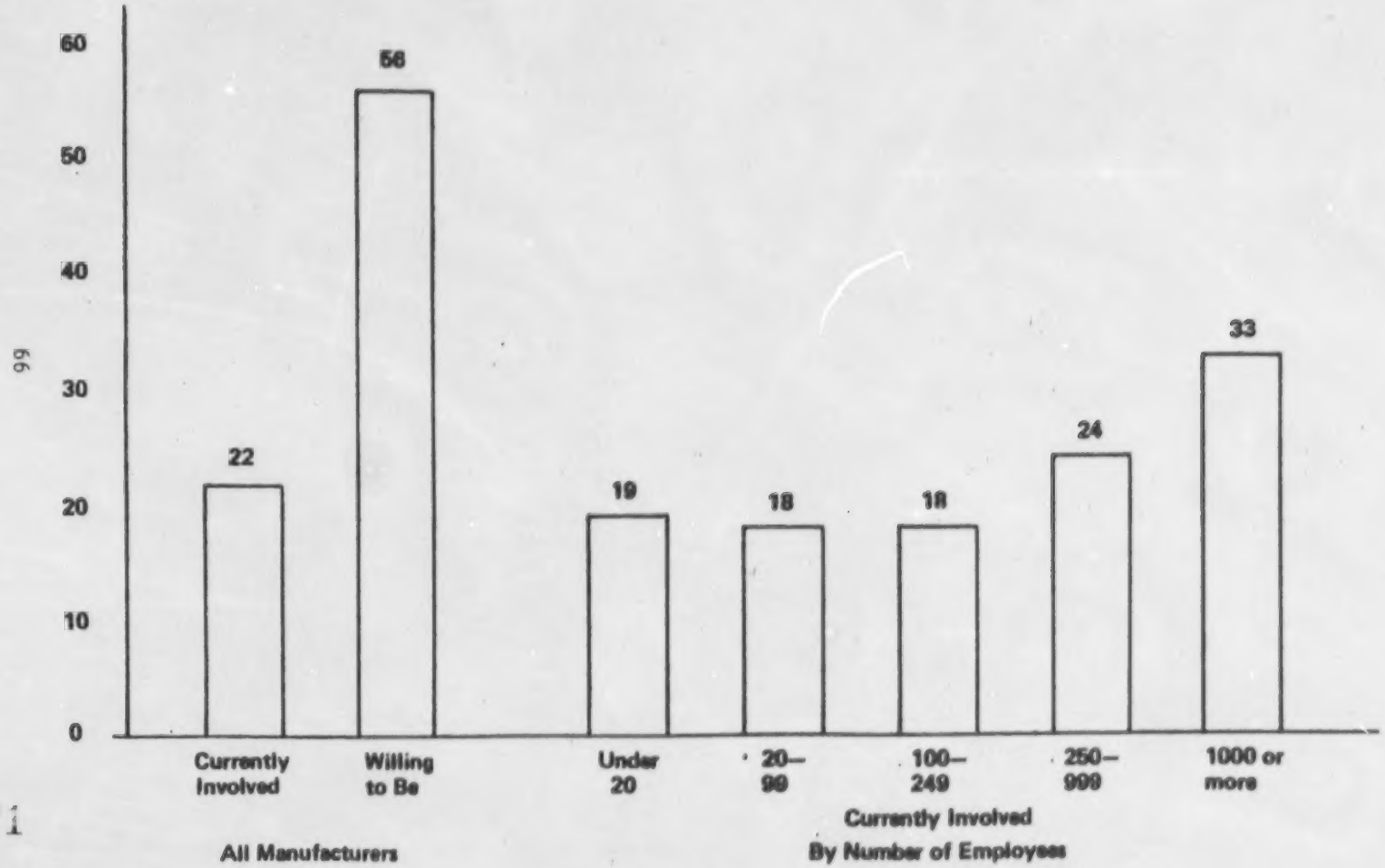
SOURCE: National Center for Education Statistics, 1982.

CURRENT OR MOST RECENT JOBS OF SENIOR HIGH SCHOOL STUDENTS WHO HAVE EVER WORKED

Type of Job	Vocational Seniors (percent)	All Seniors (percent)
Store clerk or salesperson	13	21
Waiter or waitress	12	17
Babysitting or child care	11	5
Office or clerical	11	10
Skilled trade	8	6
Other manual labor	7	8
Farm or agricultural work	7	4
Lawn work or odd jobs	4	2
Factory work, unskilled or semiskilled	4	3
Hospital or health	3	4
Other	20	20
TOTAL (percent) Number	100 [7,713]	100 [18,095]

SOURCE: Tabulated data from High School and Beyond, 1980 national survey of high school sophomores and seniors. See Lewin-Epstein 1981 for a description of the survey.

INVOLVEMENT BY MANUFACTURERS IN PROVIDING WORK EXPERIENCE BY SIZE



Source: Survey of National Association of Manufacturers, 1981

COMPANY BENEFITS FROM VOCATIONAL EDUCATION BY INVOLVEMENT OF MANUFACTURERS IN PROVIDING WORK EXPERIENCE

Does Company Benefit?	All Manufacturers (percent)	Manufacturers[a] Involved (percent)	Not Involved (percent)
Yes	59	78	53
No	16	7	19
Not Sure	25	15	28
TOTAL (percent)	100	100	100
Number	[728]	[163]	[565]

SOURCE: Tabulation of data from National Association of Manufacturers survey. See Nunez and Russell 1981 for a description of the survey.

[a]Difference between involved and not involved manufacturers significant at chi square = 32.79, $p < .001$, $df = 2$.

PROBLEM MANUFACTURERS
REPORT IN WORKING WITH
VOCATIONAL EDUCATION

Problem	Percent
Inflexible schedules	24
Inadequate planning	23
Quality of Training	19
Conflicts or disagreements on goals	18
Leadership problems	16
Schools not interested in working with business and industry	14
Conflicts or disagreements on policies or regulations	11

SOURCE: 1981 survey by the National Association of Manufacturers of 775 of its members (Nunez and Russell 1981)

RESOURCES

National Association for Industry-Education Cooperation
235 Hendricks Boulevard
Buffalo, New York 14226
Telephone 716-833-6346

Center for Education and Work
National Institute for Work and Learning
1211 Connecticut Avenue, N.W.
Washington, D.C. 20008
Telephone 202-887-6800

National Commission for Cooperative Education
3600 Huntington Avenue
Boston, Massachusetts 02115
Telephone 617-437-3778

School-to-Work Linkage Project
New Jersey Department of Education
Division of Vocational Education and Career Preparation
225 West State Street
Trenton, New Jersey 08625
Telephone 609-292-6565

SUGGESTIONS FOR INCREASING EDUCATION-
B/I/L COOPERATION
Generated by
8:30 Thursday, November 18, 1982
Mini-session

- Meeting of vocational staff with selected employers to interact and explore needs and expectations of employers
- Business/Industry assist in validation of curriculum content
- Involvement organized labor in pre-apprenticeship programs
- Seek business/industry guidelines for setting up advisory councils
- Familiarize students with business/industry opportunities in local area
- Publicize successful business/industry collaborative programs e.g., adopt a high school
- Model program on common problem such as management to get educators talking with employers.
- Get business/industry involved in number of specific programs, also share resources with industry not always other way around
- Educators should become involved in business/industry organizations
- Long-range planning for continuation of cooperation
- Individual vocational planning from reception to release in correctional institutions
- State agency cooperate with business/industry/labor to publicize noteworthy collaborative efforts, follow-up to survey employers: directory of program, publicity on programs in directory, follow-up with employers

- Teachers tailoring instruction to business/industry/labor needs
- Working out details on exchange of personnel
- New slant on team teaching, industry as part of the team

PROJECT PROFILE

NATIONAL CENTER CLEARINGHOUSE
Vocational Education Curriculum Materials (VECM) Data Base

The Vocational Education Curriculum Materials (VECM) data base is a comprehensive, centralized, computerized data base of information on curriculum materials. Its development was the result of a cooperative effort by the National Center for Research in Vocational Education, the Curriculum Coordination Centers (CCCs), and the Bibliographic Retrieval Services, Inc. (BRS).

THE PROJECT

The VECM data base contains information on both print and nonprint products. Over 1,500 records will be in the data base by the end of 1982. Only current vocational and technical curriculum materials that have an availability source are entered into the data base. Each entry includes the following information about the curriculum product: title, date, sponsoring agency, developer, subject matter classification (using "A Classification of Instructional Programs," the system developed by the National Center for Education Statistics), educational level, intended user, student target population, description of the print or nonprint material, copyright restrictions, and availability source. On-line searches, printed reports, and microfiche can be generated from the VECM data base.

ACCESS

The VECM data base is a private file for use by the National Center, the Curriculum Coordination Centers, and state liaison representatives. A retrieval training session will be conducted during the National Network for Curriculum Coordination in Vocational and Technical Education conference scheduled for July 1982 in Seattle, Washington. Additional training sessions will be offered by BRS throughout the year. When the size of the data base approaches 4,000 records, steps will be taken to make it a public file.

The National Center Clearinghouse and the Curriculum Coordination Centers will continue to build and maintain the data base cooperatively. Those wishing to enter materials into the data base should contact their regional CCC.

Following are names and addresses of the six CCCs.

FOR FURTHER INFORMATION, CONTACT
THE NATIONAL CENTER PROGRAM INFORMATION OFFICE
TEL: (614) 486-3655 OR (800) 848-4815
CABLE: CTVOCEDOSU/COLUMBUS, OHIO

East Central
Rebecca S. Douglass
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SPONSORSHIP

This activity is sponsored by the Office of Vocational and Adult Education, U.S. Department of Education.

For specific information about the data base, contact Shirley A. Chase, The National Center for Research in Vocational Education, The Ohio State University, 1960 Kenny Road, Columbus, Ohio 43210, (800) 848-4815 or (614) 486-3655.

3/82

THE NATIONAL CENTER
FOR RESEARCH IN VOCATIONAL EDUCATION

PROJECT PROFILE

NATIONAL CENTER CLEARINGHOUSE
Military Curriculum Materials for Vocational and Technical Education

THE NEED
Teachers are continually searching for curriculum to improve their programs. The military services have developed curriculum materials for occupational training that are readily applicable to civilian vocational and technical education programs. This project makes military-developed curriculum materials accessible to vocational and technical educators.

THE PROJECT
Access to military curriculum materials is provided through a "Joint Memorandum of Understanding" between the U.S. Department of Education and the U.S. Department of Defense. The National Center was selected as the U.S. Department of Education's representative to identify, acquire, evaluate, process, and disseminate the military courses to vocational and technical educators. To date, over 1,400 courses have been acquired from the military service branches, the curriculum outlines reviewed, and information about each course entered on computer for easy access. All course materials acquired are maintained in a library at the National Center Clearinghouse for use by visiting vocational and technical educators.

Both classroom and correspondence courses are acquired and disseminated. The classroom courses include curriculum outlines, instructor guides, student workbooks and handouts, technical manuals, and programmed learning materials. The correspondence courses are self-contained, individualized packages intended for persons with some basic knowledge of a subject but with a need to acquire additional competencies.

Over 150 military courses covering nineteen subject areas are available from thirty-three vocational instructional materials agencies, including the Curriculum Coordination Centers. Sixty of these courses also are available through the Educational Resources Information Center (ERIC).

The courses represent the following nineteen areas:

Agriculture
Aviation
Building & Construction
Business & Clerical
Communications
Curriculum & Instruction
Drafting
Electronics
Engine Mechanics
Food Service
Health
Heating & Air Conditioning
Machine Shop
Management & Supervision
Meteorology, Navigation, & Maritime Occupations
Photography
Public Service
Textiles & Clothing
Warehousing, Packing, & Distribution

SPONSORSHIP
This project is sponsored by the Office of Vocational and Adult Education, U.S. Department of Education.

For specific information about access to the materials, contact Shirley A. Chase, Research Specialist, The National Center for Research in Vocational Education, The Ohio State University, 1960 Kenny Road, Columbus, Ohio 43210, (800) 848-4815 or (614) 486-3655.

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RESEARCH AND DEVELOPMENT IMPACT EVALUATION[1]

Introduction

The purpose of this minisession is refinement of criteria for assessing impact of research and development (R&D). As we progress through the minisession, we expect to identify effective strategies for disseminating R&D results. Several terms are being used in their technical sense; therefore the following definitions are in order:

Impact:	A measurable change in people, programs, or organizations resulting from the use of R&D products.
Product:	An output from R&D activity; For example, it may be research findings, a teacher guide, a competency-based learner material or a workshop.
Research and Development:	A systematic process used to either discover new knowledge or to apply existing knowledge in the construction of new technology.

You are being asked in this minisession to critique some previously constructed criteria for evaluating the effectiveness of R&D. Two modes will be used for doing this. First, you will be asked to review verbally one phase of the R&D based program improvement process using one of the three following questions:

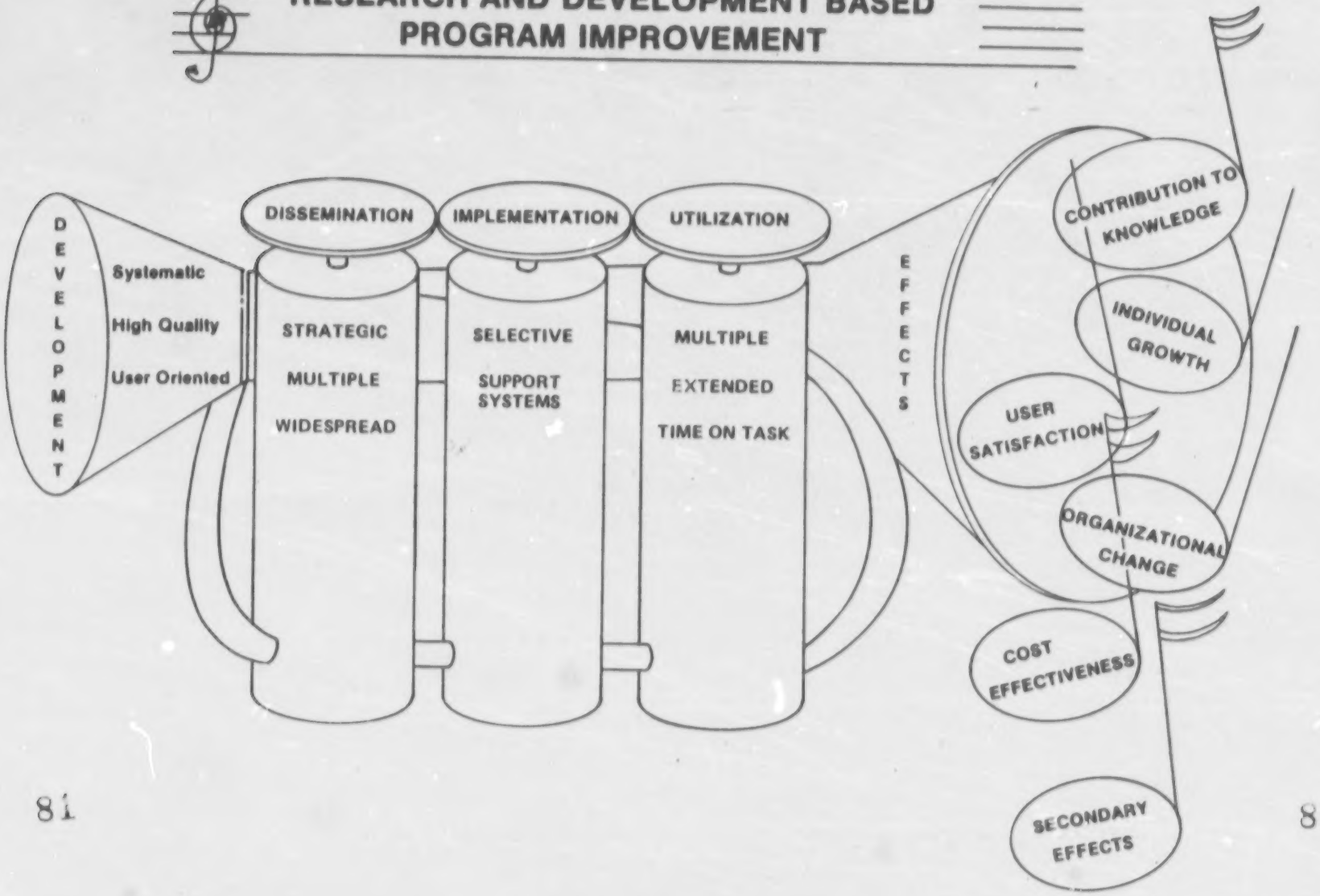
1. How can each criteria be measured?
2. What must be done to attain criteria performance?
3. What problems are likely to be encountered?

Secondly, please suggest changes on the second copy of the criteria and return it to us at the conclusion of this session. We appreciate your comments, including the suggestion of new and totally different criteria.

---

[1]This topical outline was prepared by Bill Hull and Kay Adams for the Fifth Nationwide Vocational Education Dissemination Conference in Columbus, Ohio, November 18, 1982. Dr. Hull is a Research Specialist and Dr. Adams is Coordinator of Evaluation for the National Center for Research in Vocational Education, The Ohio State University.

RESEARCH AND DEVELOPMENT BASED PROGRAM IMPROVEMENT



Approaches to Assessing Impact

Ethnographic Descriptions. This field-based, direct observation uses humans as instruments for measuring impact. It is holistic in nature with culture as a central concept in impact measures. What is known about other groups becomes the criteria for evaluating the group under study. Ethnographic research includes three kinds of approaches: (1) direct observation, (2) in-depth personal interviews, and (3) analysis of documents and artifacts.

Record Keeping and Document Analysis. Documents and records represent a major source of information for many studies of R&D impact, especially dissemination. Four characteristics describe record analysis. It is a rule-guide process; it is systematic; it aims for generality; and it deals in manifest content. Categories for keeping records must (1) reflect the purposes of the research, (2) be exhaustive, (3) be mutually exclusive, (4) be independent, and (5) derive from a single classification principle.

Cost-effectiveness Analysis. This approach to assessing impact argues for improvement of the education process as a means of benefitting from R&D. Outcomes should be examined from two perspectives. First, the technical efficiency of production should be studied, for example, the effects of classroom size on learning. Secondly, the allocative efficiency should be reviewed. The dollar value of inputs should be studied to insure the output is being produced at the least possible cost to the student and to the school.

Surveys. Surveys can be completed over the telephone, by mail, or on a face-to-face basis. They are typically structured to facilitate summary of the information collected. Most often surveys are used in conjunction with sampling techniques to reduce the cost of data collection. Surveys can be used with a random sample of respondents to facilitate generalizability or be purposive to collect data in depth.

Field Experiments. Field experiments are the only means of verifying causal inferences in educational improvement. Experiments require comparisons through either pre-post testing, treatment and control groups, or repeated measurements over time. They provide an opportunity for studying complex changes in life-like settings. However, controls in an experimental field situation rarely approach controls of the laboratory. Experiments are infrequently used in impact studies because manipulation of independent variables is difficult, and it is difficult to randomly assign subjects to treatments in school settings.

RESEARCH AND DEVELOPMENT IMPACT CRITERIA

I. Development

Systematically Conducted. A systematic process should be followed in conducting research and development (R&D). An ideal R&D process would include: conducting research/needs assessment/task analysis; reviewing relevant knowledge/practice; building a conceptual framework; sequencing development; testing and revision cycles; disseminating; implementing; and evaluating results.

High Quality. Quality of the R&D reflects: scholarship; usefulness; communicability; marketability; and equity. Content is accurate, up to date, focused on essentials, and complete.

User Oriented. Relevant audiences for the R&D are identified. Representatives of relevant audiences are involved in designing, testing, and modifying the R&D product. Primary audiences receive priority in dissemination. The resulting product contains practical information organized in an easy to use format.

II. Dissemination

Strategic Dissemination. Cost effective strategies for disseminating R&D should be devised based on characteristics of potential users; site specific factors, and features of the product itself. Dissemination should be strategic to opinion leaders and leverage points within systems.

Multiple Communication Channels. More than one channel for conveying information about R&D should be used. Communication should include both broad based (e.g., direct mail of brochures) and intensive (e.g., technical assistance) channels. Normally duplication and overlap are an asset rather than a hindrance during dissemination.

Widespread Dissemination. R&D should reach as many potential users as possible. Dissemination to individuals in different roles, to diverse settings and to many geographic areas should be emphasized.

III. Implementation

Selective Implementation. The introduction of R&D products should be sequenced to meet the needs and unique characteristics of an adopting site. To the extent possible, implementation activities should be compatible with existing programs, policies, and procedures.

Support Systems. Systems necessary to support a product should be available at the time of implementation. Three types of support systems typically are necessary for implementation: personal resources (e.g., administrative endorsement, personnel); information resources (e.g., support material, training, procedures) and physical resources (e.g., dollars, supplies, equipment).

IV. Utilization

Multiple Patterns of Use. Multiple patterns of using R&D should be encouraged. Patterns of using R&D will vary by the following dimensions: type of use, intensity or level of use, frequency of use, extent of time used, secondary use, user demographics, and setting characteristics.

Time on Task. R&D should be used frequently enough and long enough for its use to become an integral part of current practice. User engaged time in actually using the product should be maximized.

V. Effects

User Satisfaction. The R&D product and its implementation should satisfy users expectations, thus resulting in a positive attitude toward the product. User satisfaction may be expressed in product advocacy and/or integration of the product into their situation.

Individual Growth. The R&D should contribute to changes in individual's attitudes, knowledge, and/or performance.

Organizational Change. The R&D should contribute to changes in organizational policy, programs, practices, and/or structure. It may result in a cost and time savings over current practice.

Societal Effects. The R&D should contribute new and significant information with potential to advance knowledge, improve social systems, and/or enhance the quality of life.

RESEARCH AND DEVELOPMENT IMPACT CRITERIA

How important are these criteria in creating R&D impact?
(Circle one of the degrees of importance for each criteria)

Low		Med		High	
1	2	3	4	5	A. Systematically Conducted
1	2	3	4	5	B. High Quality
1	2	3	4	5	C. User Oriented
1	2	3	4	5	D. Strategic Dissemination
1	2	3	4	5	E. Multiple Channels of Communication
1	2	3	4	5	F. Widespread Dissemination
1	2	3	4	5	G. Selective Implementation
1	2	3	4	5	H. Support Systems
1	2	3	4	5	I. Multiple Patterns of Use
1	2	3	4	5	J. Time on Task
1	2	3	4	5	K. User Satisfaction
1	2	3	4	5	L. Individual Growth
1	2	3	4	5	M. Organizational Change
1	2	3	4	5	N. Societal Effects

THE NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION

RESOURCE AND REFERRAL SERVICE

Resource Organizations and Meetings for Educators (ROME) Data Base

PROJECT PROFILE

The Resource Organizations and Meetings for Educators (**ROME**) data base contains descriptions of nonprofit professional organizations, research organizations, advocacy groups, and agencies in education and related disciplines. Over 500 organizations are represented in the data base, with 1,000 anticipated by November 30, 1983. **ROME** also includes professional meetings and publications.

ORGANIZATIONAL PROFILES

The organizations in the data base offer resources and current information needed to solve educational problems. For this reason, **ROME** includes many types of organizations: citizen-parent groups, clearinghouses, consortiums, centers affiliated with universities, networks, government agencies, research and development laboratories, public service organizations, and more. The information provided for each organization includes directory-type information (such as name and address); funding source(s); educational level(s) addressed (if applicable); an abstract detailing background, purpose, and publications; subject terms that describe the organization's objectives and activities; and other pertinent information.

ROME may be used to obtain complete information about a particular organization when only partial information is known; for example, the telephone number and contact person, if only the organization name is known, or the full name represented by an acronym. A subject search will identify organizations concerned with specific topics, such as school finance, early childhood education, and microcomputers. Organizations identified in the data base through a computer search should be contacted for up-to-date information about their publications, activities, or services.

PRODUCTS AND PROJECTS

Many of the newsletters, journals, and documents produced by organizations in the data base have separate entries as products. Descriptions of research and development projects are also included.

MEETINGS

ROME is unique in providing on-line access to information on regional, national, and international meetings of interest to educators and others associated with education. Selected workshops, seminars, conferences, and symposia are included. The information provided for each meeting comprises the title, dates, location, contact information, sponsor(s), cost, educational level (if applicable), target population, and subject terms that describe the content of the meeting. Forthcoming meetings in a particular city or state, during a certain month, on a particular topic, or targeted for a specific audience can readily be identified, as well as the date and place of a particular meeting.

ACCESS

ROME is a private data base developed by the Resource and Referral Service, a project of the National Center for Research in Vocational Education, with Bibliographic Retrieval Services, Inc., as the subcontractor. The Resource and Referral Service is part of the Research and Development Exchange (RDx), a dissemination network comprised of eight regional educational laboratories. The names and addresses of the RDx members who will either provide search services for **ROME** or make referrals to services within their regions are printed on the reverse of this sheet.

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AEL Regional Exchange
Appalachia Educational Laboratory, Inc. (AEL)
P.O. Box 1348
Charleston, West Virginia 25325
(304) 347-0420
Contact: Sandra Orletsky
States served: Alabama, Florida, Georgia, Kentucky, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, and West Virginia

McREL Regional Exchange
Mid-continent Regional Educational Laboratory (McREL)
4709 Belleview Avenue
Kansas City, Missouri 64112
(816) 756-2401
Contact: Susan Everson
States served: Colorado, Kansas, Missouri, Nebraska, North Dakota, South Dakota, and Wyoming

Midwest Regional Exchange
CEMREL, Inc.
3120 - 59th Street
St. Louis, Missouri 63139
(314) 781-2900
Contact: Carol Thomas
States served: Illinois, Indiana, Iowa, Kentucky, Michigan, Minnesota, Missouri, Ohio, Tennessee, and Wisconsin

Northeast Regional Exchange
101 Mill Road
Chelmsford, Massachusetts 01824
(617) 256-3985
Contact: J. Lynn Griesemer
States served: Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont

Northwest Regional Exchange
Northwest Regional Educational Laboratory (NWREL)
300 S.W. Sixth Avenue
Portland, Oregon 97204
(503) 248-6800
Contact: Joe Pascarelli
States served: Alaska, Hawaii, Idaho, Montana, Oregon, and Washington

RBS Regional Exchange
Research for Better Schools, Inc. (RBS)
444 North Third Street
Philadelphia, Pennsylvania 19123
(215) 574-9300
Contact: Richard McCann
States served: Delaware, Maryland, New Jersey, and Pennsylvania

SEDL Regional Exchange
Southwest Educational Development Laboratory (SEDL)
211 East Seventh Street
Austin, Texas 78701
(512) 476-6861
Contact: Nancy Baker Jones
States served: Arkansas, Louisiana, Mississippi, New Mexico, Oklahoma, and Texas

Western Regional Exchange
SWRL Educational Research and Development
4665 Lampson Avenue
Los Alamitos, California 90720
(213) 598-7661
Contact: Roger Scott
States served: Arizona, California, Nevada, and Utah

SPONSORSHIP

This activity is sponsored by the National Institute of Education.

Organizations wishing to be included in **ROME** should contact Jay Smink, Project Director, for information. Meeting announcements may be sent directly to the Resource and Referral Service at the National Center.

11/82

Date: 11/1/82

IMPACT ASSESSMENT WITHIN FLORIDA DIVISION OF VOCATIONAL EDUCATION

"No contract shall be made . . . unless the applicant can demonstrate a reasonable probability that the contract will result in improved . . . techniques or . . . materials that will be used in a substantial number of classrooms or other learning situations within five years after the termination date of (the) contract"

PL 94-482
Section B

INTRODUCTION

The Florida Division of Vocational Education is responsible for determining the impact of the products it has distributed to its vocational educators. This stems from the mandate in the Florida Statutes and from a sincere desire to evaluate the effectiveness of a unique and extensive effort to disseminate and implement educational products and concepts. The purpose of impact assessment is twofold: accountability and feedback for improvement.

Within the past year three impact assessment efforts have been occurring simultaneously. All are supported by the Bureau of Vocational Research, Dissemination, and Evaluation which is under the direction of Dr. Margaret Ferqueron.

TYPES OF IMPACT ASSESSMENTS

The longest running and continuous impact assessment is done through the mail. Selected products are assessed one year after the initial distribution begins. The mail out assessment is advantageous because of its potential to reach a large population. Two disadvantages are the low response rate from those reached and inaccurate responses provided by those returning the forms. Initially, Florida experienced a low return on its mailout assessments. However, through a determined effort and familiarity with the instrument, the return rate has slowly increased and is presently nearing forty percent, which provides a reasonable sample. The one page mailout questionnaire is made up of nine questions that determine the place of work, position of the respondent, and the

program represented. In addition, it contains questions about product receipt, quality of in-service, and amount of product use. A space is also provided for comments. Each of the questions is numerically coded for computerization of responses. A report is written analyzing and summarizing the responses for each product.

A second type of impact assessment is done by telephone. Use is limited to obtaining in-depth information from the recipients of a small number of products. Periodic assessments are conducted when information is needed for consideration in revising processes for obtaining products or for modifying the resulting instructional materials. The telephone survey can be more costly than the mail survey in time and should be limited to a small number of especially targeted projects.

For continuity, it is essential to develop a list of questions, but more information is obtained if these questions are asked in an informal manner. The telephone survey used most recently in Florida begins with biographical questions and progresses to questions about in-servicing, product use, and teacher satisfaction. A section for comments is also provided.

The third type of impact assessment is personal visitations to teachers in selected schools and programs. It is this form of impact assessment that will be discussed in more detail in this paper.

METHOD OF QUESTIONNAIRE DEVELOPMENT

The initial draft of the questionnaire used in the personal interviews included questions from numerous sources including instructional designers, editors, graphic designers, printing specialists, dissemination and diffusion consultants, and warehouse staff. The result was a comprehensive instrument which addressed the concerns of many who are involved in the process. Some questions are specific to a particular part of the process but some represent overlapping concerns about the impact of the product.

The mailout questionnaire, which was discussed earlier, was also consulted. It is

very concise and deals with areas of interest specific to dissemination and diffusion, but not necessarily to those of design, production and storage. It is necessarily brief, requiring a very short time to complete.

Final decisions about the content of the questionnaire were made by a small group of four, which included a person from our evaluation section and three from dissemination and diffusion. A final draft was developed, agreed upon, and field tested and this indicated the need for minor changes. Revisions were made and the final instrument was approved. It is one page with sixteen question in addition to biographical information and includes questions about product opinion, dissemination, inservice and use of materials. It also provides a section for comments.

METHOD OF SELECTING TARGET POPULATION

After the instrument was field tested and revised, the selection of the target population was the next step. In order to assess impact, it was felt that teachers should have had the selected products for at least one year. This provides ample time to become familiar with the materials and put them into use.

The program areas selected were Industrial Arts and Industrial Education. Both included several specific programs whose teachers had products disseminated more than one year earlier. These programs include: Automotive Mechanics, Electrical Wiring, Air Conditioning, Fundamentals of Power Mechanics, and Fundamentals of Industrial Materials and Processes.

METHOD OF SELECTING SCHOOLS

The State of Florida is divided into five regions, and visitations were made to schools in each of the regions. Two criteria were used to select the schools which were visited: (1) Multiple programs being assessed were taught in the school, (2) Traveling distance between the selected schools was manageable. While a random selection of

schools and programs would have provided a better population sample, budget restrictions limited the selection process. When possible, money was saved by coordinating our visitations with conferences, workshops, and meetings in the various regions. As it turned out, a good size sampling of teachers of the selected programs were visited: Automotive Mechanics, 21%; Electrical Wiring, 20%; Air Conditioning, 18%; Power Mechanics, 9%, and Fundamental of Industrial Materials and Processes, 13%. This represents interviews with 17% of all the Industrial Art/Industrial Education teachers who teach these five programs in the State.

The selection of schools could have been made by asking the occupational program director and the regional program consultants for recommendations. This idea was rejected because it seemed only natural for these people to direct visitations to the "best" programs. It was determined that the selection process should be kept as "blind" as the budget permitted.

PREVISIT PREPARATION

When a particular region was selected for a visit, a directory of schools within that region was consulted to determine the courses taught and the location of the schools. The schools which taught the most Industrial Ed/Industrial Arts courses were selected, and the list was then narrowed by the proximity of the schools. Another reviewal of all the schools was made to determine whether any were located near those to be visited.

Visitations were generally kept to three schools per day because time was quickly used through traveling between them, introductions at the main office, and moving between instructors and classes.

When the schools were identified, an itinerary was prepared. Generally, three to five days were spent in each region. The time was determined by how long it

would take to cover two to three separate areas within the region; and through this method, a good regional representation was achieved.

A letter was sent to visit to the Administrator in charge of each school which was selected requesting permission to visit. The letter explained the general purpose of the visit and identified the programs and teachers and indicated the time and date of arrival. It was mailed at least two weeks before the visit. There were occasions when the individual receiving the letter was in doubt as to the intent of the visit and called for clarification. Visitations, however, were never denied; and in most cases the opportunity to provide feedback about the products was welcomed and appreciated.

THE INTERVIEWING PROCESS

The first stop on each visit was with the administrative contact person. To maintain an open atmosphere, a copy of the assessment instrument was given to that person. This was good public relations and helped disarm any negative feelings or doubts about the interviews. From the main office, arrangments were made to be introduced to the selected teachers.

As visitors, we attempted to arrange interviews to interfere the least with instruction. The greatest problem occurred where the program had only one teacher. When it was necessary to interview a teacher during class, the interruption seemed more intrusive in the high schools than in the vocational technical centers or community colleges. Interviewing, therefcre, was not alway accomplished under ideal conditions.

The first interviews were conducted with two interviewers. One asked questions while the other recorded the answers. Creating an informal climate for this process was accomplished through a discussion approach to the questions. The discussion, however, sometimes strayed, and interviewers soon became adept at keeping the discussion on task. Some of the first interviews lasted over an hour, and this was longer than necessary. We interviewed in one day as many as five or six teachers in three locations

or fifteen in one school. Where more than one teacher taught the same program, an effort was made to talk with each teacher individually.

If the teacher had not received any of the materials, the interview was terminated and took less than five minutes. This was a very small percentage of those interviewed and the products in question were provided as soon as possible. For those who had the materials, the time needed was fifteen minutes to half an hour depending on how much digression the teacher made. We learned that we usually did not benefit from additional information after thirty minutes, and terminated the interview.

After interviewing in two regions using two interviewers, it was felt that time and money could be saved by using one interviewer. While this did save time and money, it lost some effectiveness. The interviewer relinquished some spontaneity because of the necessity to ask questions and record the responses and comments. The person interviewed seemed much more aware of this formality and less willing to discuss responses. The time required for the interviews was trimmed but so was the amount of pertinent information received.

Often, the teachers showed the interviewer around the classroom and discussed the program. Generally, this was encouraged because of the insight it provided into utilization of the product, and it often brought out additional comments about implementation problems the teacher was having with the materials. Teachers enjoyed showing off their programs, and the interviewers often found themselves caught up in the teacher's enthusiasm, but the conversations could be time consuming. However, some rambling was good for getting teachers relaxed and open with their answers.

Before leaving any building, a point was made to check out through the main office. At this time, no attempt was made to see the principal/director. The office personnel were thanked for their hospitality and told that the interviews were completed. Sometimes this led to a second meeting with the administrator who was interested in immediate reaction of the interviewers to the program.

RESULTS

Questions were grouped and responses tallied according to areas of concern: product opinion, product awareness, dissemination, diffusion and usage.

Two questions dealt with product opinion. Responses to both indicate that acceptance of the products is good. On the question, "Do you want the product?" 89% of the Air Conditioning teachers anwered "Yes" and 90% or more answered affirmatively for the other four programs.

Two questions pertained to publicizing the availability of the product. Ninety percent of the teachers questioned had heard of the instructional materials product for their program. The percentage varied from 100% for the teachers of Automotive Mechanics to 76% for the teachers of Fundamentals of Industrial Materials and Processes.

Fifty-six percent of those answering indicated that they learned about the product from "other" sources. The most frequent "other" source was other teachers. Only 10% of those interviewed had learned of the materials through the Florida Vocational Journal or direct mailing of brochures; although, 24% of the teachers of Heating, Air Conditioning and Refrigeration Mechanics indicated that they had learned of these materials from these two sources.

Generally, the distribution of materials has been effective. The highest percentage to have received the product was the Automotive Mechanics teachers. Fifty-seven of the sixty teachers interviewed (95%) had received the product. The lowest percentage was the Electrical Wiring Program with 78% receiving the materials. The average percentage for all of the programs was 87%.

Twenty-five percent of the Automotive Mechanics teachers indicated that they had requested materials and not received them. This was a higher percentage than in other programs because the Automotive mechanics teachers were required to attend a workshop before receiving the materials. This mandatory workshop attendance is also

reflected in the percentage of Automotive Mechanics teachers who received the materials through a workshop as opposed to receiving it through the regional consultant supervisor.

Sixty-two percent of the teachers interviewed indicated that they had received in-service on the product. The rate varied from 16% for Fundamentals of Industrial Materials and Processes to 80% for Fundamentals of Power Mechanics. The 80% indicated by the latter may be misleading due to an small sample of teachers of that program. The next highest percentage to receive in-servicing was Automotive Mechanics teachers (74%).

The training was considered to be adequate by 83% of those interviewed. Again, Automotive Mechanics was rated highest (93%). Twenty-five percent of those responding indicated the need for more training. Of those who indicated in-service deficiencies, 41% felt that the workshop was too short. The lack of adequate time given to training teachers to use the materials was given more frequently than any other single response.

Two questions related to usage. One asked how the product was used and the other how much was used. Twenty percent of the teachers responding were not using the products and another 7% were using them only as reference. However, 33% are using them as the core of the course and 41% as supplemental to other materials. Seventy-four percent are using the materials to a high degree and 27% are not. The Automotive Mechanics curriculum is being used heavily by 91% of the teachers.

Of those who use the materials, 31% are using about 25% of all that they have received; 29% are using about 50%; and 41% are using about 75% or more. Of those who use the Air Conditioning materials, 47% use about 50% and 53% use 75% or more of the materials. Only about one-half of the Air Conditioning teachers, however, are using the material at all. Fifty-two percent of the Autmotive mechanics teachers indicated that they were using 25% or more of the materials; one-half of these respondents were using 75% or more of the material. Since the Automotive Mechanics curriculum includes six

service areas, these figures indicate that 86% of the teachers interviewed are using at least one service area.

CONCLUSIONS

The impact assessment interview was not designed to provide an evaluation which would yield a statistical analysis. The purpose was to gather information which could serve the need for accountability and could lead to improvement. For those purposes the responses were tabulated and analyzed.

Generally, the distribution of materials when they first became available was good. However, in-service was not provided for many who received the products. An average of 87% had received materials but only 62% had received in-service. This is especially inportant when we compare the relationship between the initial in-service and usage for automotive mechanics to that of electrial wiring and air conditioning mechanics. Only 52% and 53% of the teachers of electrical wiring and air conditioning had received in-service but 74% of the automotive mechanics teachers had. Ninety-one percent of the automotive mechanics teachers, as compared to only 58% of electrical wiring and 54% of air conditioning teachers, were using the materials as supplemental and core of the course.

The higher rate of usage is also a result of continued inservice after the initial distribution. This provided training for new teachers and additional training for experienced teachers. For automotive mechanics, this has been continuous for five years with five different workshops offered in that period. Also, a subject matter specialist is available to work with individual automotive mechanics teachers in their shops. An attempt is made to work with new automotive mechanics teachers before they start or early in their first year.

The major conclusions are:

- A greater effort should be made to provide in-service for all teachers who receive instructional materials.
- A greater effort is needed to provide an on-going program for teachers who need more than one workshop or who need individualized help in their shops.
- A periodic attempt should be made to identify new teachers so they may receive materials and assistance. The existing system does not provide this information early enough.

FUTURE

Several things are occurring which seem to foretell the future. These include:

- Teleconferencing. After a year of research, awareness meetings and trials, the Division of Vocational Education is using teleconferencing for the initial in-servicing for the use of a limited number of new products. The results so far have been promising. The system is under the direction of Dorothy Bouie, D/D Consultant.
- Employability Skills In-Service Network. The series was written for Florida's vocational students and has been in use for about five years. It is available in English and Spanish. A network of resource people is forming which will cover the State and can provide staff development assistance. This is in the second year of development. This network is under the direction of Sarah Dame, D/D Consultant.

- Industrial Education In-Service Network. The network will include at least one teacher educator from each region and one teacher from each region for each of the instructional programs in the network. Currently, the programs

include Automotive Mechanics, Air Conditioning Mechanics and Electrical Wiring. Impact assessment interviews will be conducted in early 1983 with teachers of Industrial Electricity and Industrial Electronics. These and others will be added as needed in the future. This network is under the direction of Harold Cramer, D/D planning Coordinator.

Search Negotiation Strategies

1. Determine at what stage of search formulation the user is (vague idea of topic ⟶ formalized statement of question).
2. Find out who the search will be used for (classroom guidelines, program proposal, doctoral thesis, etc.).
3. Ask the client to list some relevant documents he/she knows of.
4. Formulate the question into a search strategy and discuss with the client.
5. Translate the concepts/strategy into descriptors:
   a. Go over related descriptors to see if they apply.
   b. Make sure client approves of all descriptors, particularly in a subject area unfamiliar to the searcher.
6. Explain the limitations of searching and/or what to expect in searching the client's specific topic.
7. Leave yourself a place to go with the search:
   a. Discuss broader areas if there is little available on the topic.
   b. Ask how the client would want to narrow the topic if the subject is very broad (by date, type of document, population, etc.).

Tips for Locating Descriptors

1. Try component words in the rotated display.
2. Think up as many synonyms and near synonyms as you can and try looking these up.
3. Check the hierarchical display for broader and narrower terms; try looking under the broader term for related descriptors.
4. Ask someone at an ERIC Clearinghouse with a scope closest to your topic for help. (You can also call the ERIC Hotline Project toll free at 800/336-3728.)

Summary of Significant Indexing Rules

1. Descriptors used in the indexing process must be in the Thesaurus of ERIC Descriptors.

2. The Identifier Field should be used to index specific entities, such as geographic locations, project names, etc.

3. The "major" subject matters of the document, whether expressed as Descriptors or identifiers, must be asterisked (*) in order to distinguish them from the less substantial or "minor" topics.

4. At least one (1) major Descriptor must be assigned to a document: not more than six (6) major Descriptors* are permitted for each document. There is, however, no upper limit on the total number of Descriptors that can be used to index a given document; the average through 1973 for RIE is around eleven (11).

   *CIJE articles were formerly limited to ten (10) descriptors. There is no longer a limit.

5. There is no minimum requirement for Identifiers: no more than two (2) identifiers should be designated as major.

6. Index to the specific level of subject matter covered by the document. Do not automatically index "up" to higher generic levels than the document actually deals with. Do not automatically index "down" to all the sub-elements of the level dealt with.

7. Index in depth, or exhaustively, all significant concepts covered in the document.

8. Index the document and exposition in hand; avoid indexing implications, possible uses, and other aspects referred to, but not actually dealt with.

9. Index on the basis of the entire document, not just a part such as the Introduction or Conclusions.

10. The indexer must always keep in mind the checklist of indexable elements:

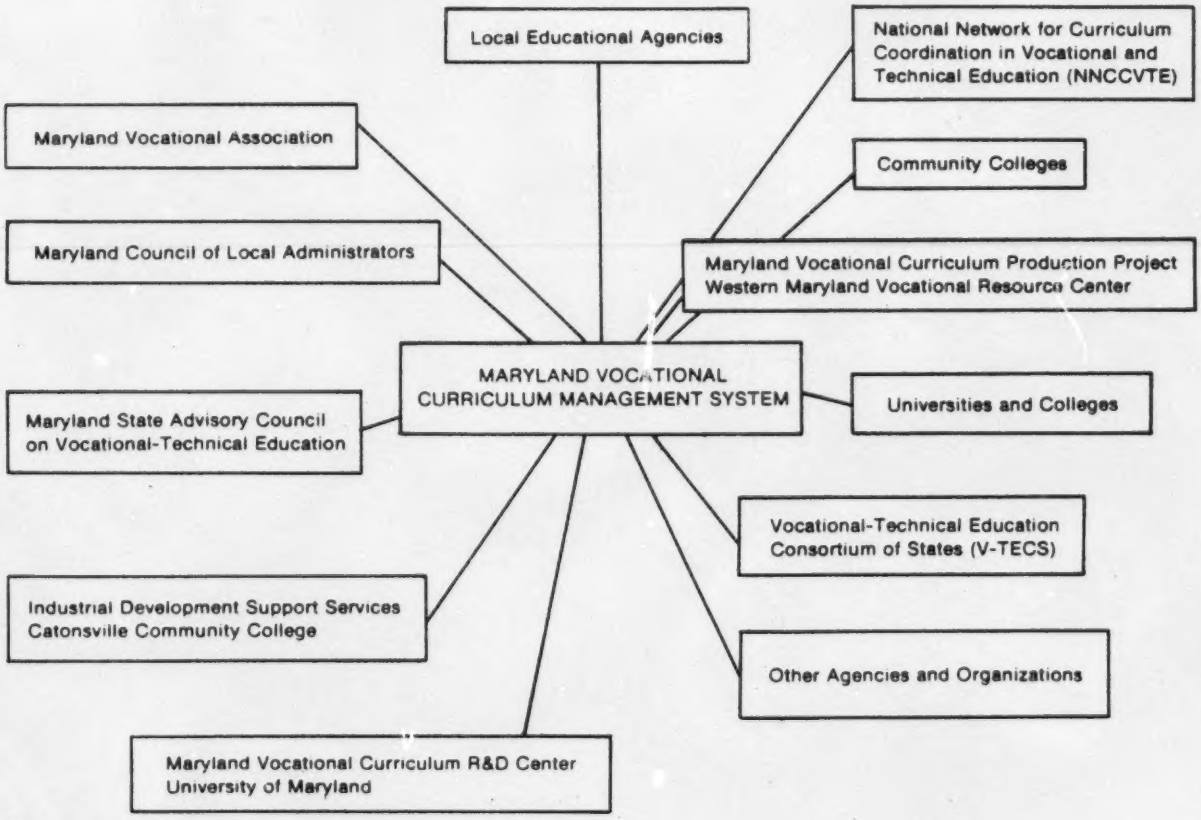
    * Population Concepts
      Educational (i.e. Grade/Academic) Level
      Other Groupings
    * Activities/Action Concepts, Methodology/Material Concepts
    * Curriculum Concepts
    * Document Form/Type

MARYLAND VOCATIONAL CURRICULUM MANAGEMENT SYSTEM

The Maryland Vocational Curriculum Management System has been established to improve the coordination of curriculum development and dissemination activities in the State. The primary objective of the System is to get effective curriculum materials into the hands of classroom teachers.

A number of individuals have been identified to serve in a liaison capacity to the System. These liaison representatives are the key to the System, since curriculum materials and services are provided to the teachers through them. Your local curriculum liaison is _____.

The figure below illustrates the various linkages which have been established in the System.


Local Educational Agencies
National Network for Curriculum Coordination in Vocational and Technical Education (NNCCVTE)
Maryland Vocational Association
Community Colleges
Maryland Council of Local Administrators
Maryland Vocational Curriculum Production Project
Western Maryland Vocational Resource Center
MARYLAND VOCATIONAL CURRICULUM MANAGEMENT SYSTEM
Universities and Colleges
Maryland State Advisory Council on Vocational-Technical Education
Vocational-Technical Education Consortium of States (V-TECS)
Industrial Development Support Services Catonsville Community College
Other Agencies and Organizations
Maryland Vocational Curriculum R&D Center University of Maryland

INTERSTATE LINKAGES. Interstate linkages play an important role in providing materials and services to Maryland teachers.

NNCCVTE - The National Network for Curriculum Coordination in Vocational-Technical Education (NNCCVTE) provides materials from all states. Maryland belongs to the East Central Network for Curriculum Coordination (ECNCC) of the NNCCVTE. The materials from the NNCCVTE are in the free-loan library at the Maryland Vocational Curriculum R&D Center.

V-TECS - Maryland is also a member of the Vocational-Technical Education Consortium of States (V-TECS), an organization concerned with the development of catalogs of performance objectives. V-TECS catalogs are disseminated by the Maryland Vocational Curriculum Production Project at the Western Maryland Vocational Resource Center.

MARYLAND VOCATIONAL CURRICULUM PRODUCTION PROJECT. The Maryland Vocational Curriculum Production Project serves as a statewide center for the reproduction, production, and dissemination of vocational curriculum materials and media. The five functions of the Center include: printing curriculum materials; producing different types of curriculum media; disseminating curriculum materials developed in Maryland; maintaining a media loan system; and providing graphics support to curriculum development. The center's address is:

Maryland Vocational Curriculum Production Project
Western Maryland Vocational Resource Center
P.O. Box 5448, McMullen Highway
Cresaptown, Maryland 21502
(301) 729-8950

MARYLAND VOCATIONAL CURRICULUM R&D CENTER. The Maryland Vocational Curriculum R&D Center provides resources and support services for vocational curriculum research and development. The functions of the Center include: doing curriculum research; collecting curriculum materials; evaluating curriculum materials; modifying curriculum materials; developing curriculum materials; field testing materials; responding to requests for curriculum materials and information; and maintaining a free-loan resource collection of curriculum materials. The Center's address is:

Maryland Vocational Curriculum R&D Center
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University of Maryland
College Park, Maryland 20742
(301) 454-2260

FOR FURTHER INFORMATION ABOUT THE MARYLAND VOCATIONAL CURRICULUM MANAGEMENT SYSTEM, contact your local curriculum liaison representative or:

Dr. Gerald F. Day
Maryland State Department of Education
Division of Vocational-Technical Education
200 West Baltimore Street
Baltimore, Maryland 21201
(301) 659-2568

EXECUTIVE SUMMARY OF THE FEASIBILITY OF COLLECTING LABOR MARKET SUPPLY DATA FROM EXISTING RECORDS

by
J.B. Morton, Executive Director
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Coordinating Committee

A study was undertaken by the Oklahoma State Occupational Information Coordinating Committee to determine the feasibility of collecting follow up data on completers (labor market supply) from existing records. Sources of such information were identified as the Oklahoma Employment Security Commission, the State Board of Higher Regents, the State Board of Private Schools, CETA Prime Sponsors, the State Department of Vocational and Technical Education, and the U.S. Department of Defense. Information sought included employment status (employed/unemployed, related/unrelated), county or area of employment, salary, educational status (continuing education/not continuing education), and if the program completers had enlisted in the military.

The procedure for the study involved collecting a random sample of program completers in secondary and adult vocational and technical education, CETA, and private schools. The procedure included collecting follow up data from the sample of program completers in the traditional survey method from each individual, then to collect follow up data from computerized existing records, and compare the individual and aggregated data. Results obtained through the use of the computer and existing records obtained a higher response rate, is very low in cost, easily standardized, and provides improved credibility. The study shows there is no significant difference in the data collected from computerized existing records as compared to the traditional follow up in obtaining employment and training related information from vocational education, adult and secondary level, private schools, and CETA clients.

Existing records provide accurate information on completers with a ninety-two percent accuracy level in designating where the completer is working in the sub-state areas in Oklahoma. The computerized existing records can obtain accurate quarterly wage information for program completers. It can be concluded that these data are far more accurate than that received from other sources. Wages reported by the survey method tend to be over stated. Also, quarterly wages tend to be a better guide to evaluate programs than dollar per hour data.

Existing records offer the very best opportunity to get a correct count on individuals who continue their education. The Oklahoma SOICC working through the National Occupational Information Coordinating Committee, was able to get information from the U.S. Department of Defense files. These files offer the best procedure of obtaining military information.

When the sample of 890 program completers social security numbers were run through the various data sources, a residual of 191 of the total number remained which were not located. This residual includes those who are self-employed, unemployed, not seeking employment, but seeking employment other than through the Employment Security Commission process, out of state, deceased or unknown, and those for whom incorrect social security numbers have been recorded. It will be necessary at this point to survey a sample of residual or to follow up the entire residual group through the traditional follow up technique.

SUMMARY - BY PROGRAM/SCHOOL

INDIAN MERIDIAN AREA VO-TECH SCHOOL
Division Name

Total of all programs
Program Name

486 Completed Program

234 Employed

161 Employed, related to Training

73 Employed, Not related to Training

22 Unemployed

82 Continuing Education

33 While working

49 Not working

$ 2294.40 Average Quarterly Wage

8 Armed Forces

106 Unknown

Location by State Area for those working

1 _____ 2 _____ 3 _____ 4 81 5 75 6 78 7 _____ 8 _____

SUMMARY - BY DIVISION/STATE

HEALTH

Division Name

Total all programs

Program Name

1759 Completed Program

967 Employed

819 Employed, related to Training

148 Employed, not related to Training

61 Unemployed

297 Continuing Education

119 While working

178 Not working

$ 2668.40 Average Quarterly Wage

11 Armed Forces

229 Unknown

Location by State Area for those working

1 84 2 69 3 51 4 35 5 342 6 225 7 85 8 76

SUMMARY - BY SCHOOL

INDIAN MERIDIAN AREA VO-TECH SCHOOL
School Name

SECRETARIAL TRAINING
Program Name

138 Completed Program

72 Employed

48 Employed, related to Training

24 Employed, not related to Training

5 Unemployed

26 Continuing Education

11 While working

15 Not working

$ 2188.80 Average Quarterly Wage

0 Armed Forces

16 Unknown

Location by State Area for those working

1 _____ 2 _____ 3 _____ 4 31 5 22 6 19 7 _____ 8 _____

Department of Education—NCES
Washington, D.C. 20202
Vocational Education Data System (VEDS)

Form Approved
FEDAC #R139
Approval expires
June 30 1984

STATE Oklahoma REPORTING PERIOD 1980-81 DATE SUBMITTED

Part A(1):

SECONDARY COMPLETER/LEAVER FOLLOW-UP REPORT
EMPLOYMENT STATUS (FOLLOW-UP) BY INSTRUCTIONAL PROGRAM (COMPLETERS ONLY)

Instructional Program (01 0100-17 9900)		Total Completers		Military Service Full Time	Employed in a Field		Pursuing Additional Education (Employed in a Field Not Related to Training Not in Labor Force or Unemployed)	Unemployed (Seeking Employment) and Not Pursuing Add'l Education	Not in Labor Force and Not Pursuing Add'l Education	Status Unknown
		Universe	Sample		Related to Training	Not Related to Training Not Pursuing Additional Education				
01 0100	Agricultural Production	2026		53	375	433	820	70	64	202
01 0700	Forestry	31		0	2	6	13	2	1	7
04 1700	Real Estate	12		0	3	3	5	0	0	1
04 1800	Recreation & Tourism	22		0	9	1	9	0	2	1
07 0101	Dental Assisting	61		2	26	10	12	1	3	7
07 0301	Nursing (Associate Degree)	0		0	0	0	0	0	0	0
07 0400	Rehabilitation	18		0	6	6	3	1	2	0
09 0201	Care & Guidance of Children	101		1	28	16	31	6	13	6
14 0300	Filing, Office Machines	790		5	333	87	240	32	62	31
14 0700	Stenographic, Secretarial, & Related	646		2	302	44	203	28	40	27
16 0605	Police Science Technology	N		N	N	N	N	N	N	N
17 1300	Drafting Occupations	219		9	68	11	82	3	10	14
17 1900	Graphic Arts Occupations	191		1	80	39	26	7	27	11
17 2801	Fireman Training	0		0	0	0	0	0	0	0
17 2900	Quantity Food Occupations	91		6	35	15	17	3	4	4
OTHER (Specify if more than 1%)		0		0	0	0	0	0	0	0
OTHER (Less than 1% of Total)		0		0	0	0	0	0	0	0
TOTAL										

* N-Not offered

* 0-none enrolled

* *

105

103

108

This report is authorized by PL 94 482 (20 USC 2391)

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